

MS303-1980





TO STATE OF THE ST



A SELECTIVE MICROFILM EDITION

PART II (1879–1886)

Thomas E. Jeffrey Microfilm Editor and Associate Director

> Paul B. Israel Assistant Editor

Mary Ann Hellrigel David W. Hutchings Douglas G. Tarr Robert A. Rosenberg Editorial Associates 177 5-111

Leonard DeGraaf Joseph P. Sullivan Alan Stein Karen Kozak

John Deasey Barbara B. Tomblin Jacquelyn Miller

Maria Antonakakis Student Assistants

Keith A. Nier Assistant Editor

Reese V. Jenkins Director and Editor

Sponsors Ruigers, The State University of New Jersey National Park Service, Edison National Historic Site New Jersey Historical Commission Smithsonian Institution

University Publications of America

Frederick, Maryland 1987

Edison signature used with permission of McGraw-Edison Company.

Thomas A. Edison Papers

at

Rutgers, The State University

endorsed by National Historical Publications and Records Commission 18 June 1981

Copyright © 1987 by Rutgers, The State University

All rights reserved. No part of this publication including any portion of the guide and index or of the microfilm may be reproduced, stored in a retrieval system, or transmitted in any form by any means—graphic, electronic, mechanical, or chemical, including photocopying, recording or taping, or information storage and retrieval systems—without written permission of Rutgers, The State University, New Brunswick, New Jersey.

The original documents in this edition are from the archive at the Edison National Historic Site at West Orange, New Jersey.

THOMAS A. EDISON PAPERS

Reese V. Jenkins Director and Editor

Thomas E. Jeffrey Associate Director and Microfilm Editor

Student Assistants

Assistant Editors Paul B. Israel Robert A. Rosenberg Keith A. Nier Andrew Butrlea

1

Research Associates Douglas G. Tarr Mary Ann Hellrigel David W. Hutchings

Secretary

Assistant to the Director Helen Endick

Grace Kurkowski

Leonard DeGraaf Alan Stein Jacquelyn Miller

and the second second second second

Joseph P. Sullivan Karen Kozak Granville Miller

BOARD OF SPONSORS

Rutgers, The State University of New Jersey Edward J. Bloustein T. Alexander Pond Tilden G. Edelstein John Gillis

New Jersey Historical Commission Bernard Bush Howard L. Green National Park Service, Edison National Historic Site Roy W. Weaver Edward J. Pershey Smithsonian Institution

Bernard Finn Arthur P. Molella

EDITORIAL ADVISORY BOARD

James Brittain, Georgia Institute of Technology Alfred D. Chandler, Jr., Harvard University Neil Harris, University of Chicago Thomas Parke Hughes, University of Pennsylvania Arthur Link, Princetton University Nathan Reingold, Smithsonian Institution Robert E. Schoffeld, Iowa State University

CORPORATE ASSOCIATES

William C. Hittinger (chairman), RCA Corporation Ebward J. Blouscin, Rutgers, He State University of N.J. Cees Bruynes, North American Philips Corporation Paul J. Christinaner, Charles Elsions Fund Philips F. Dietz, Westinghouse Electric Corporation Roland W. Schmitt, General Electric Corporation Harold W. Sonn, Public Service Electric and Gas Company Morris Tanenbaum, AT&T

FINANCIAL CONTRIBUTORS

PRIVATE FOUNDATIONS

Alabama Power Company

Alfred P. Sloan Foundation Charles Edison Fund The Hyde and Watson Foundation Geraldine R. Dodge Foundation PUBLIC FOUNDATIONS
National Science Foundation
National Endowment for the Humanities

Mr. and Mrs. Stanley H. Katz

PRIVATE CORPORATIONS AND INDIVIDUALS

Amerada Hess Corporation
ATRET
Atlantic Electric
Association of Edison Illuminating
Companies
Bantelle Memorial Institute Foundation
The Boston Edison Foundation
Cabot Corporation Foundation
Cabot Company
Cansolidation End Light Company
Cansolidation End Company of
New York, Inc.
Consumers Power Company
Corning Giss Worls Foundation
Duke Power Company
Exon Corporation

Gulf States Utilities Company Idaho Power Company International Brotherhood of Electrical Workers Iowa Power and Light Company

Florida Power & Light Company

General Electric Foundation

Gould Inc. Foundation

Matsushita Electric Industrial Co., Ltd. McGraw-Edison Company Middle South Services, Inc. Minnesota Power New Jersey Bell Telephone Company New York State Electric & Gas Corporation North American Philips Corporation Philadelphia Electric Company Philips International B.V. Public Service Electric and Gas Company RCA Corporation Robert Bosch GmbH San Diego Gas & Electric Savannah Electric and Power Company Schering Plough Foundation Texas Utilities Company Thomson-Brandt

Transamerica Delaval Inc.
Westinghouse Educational Foundation
Wisconsin Public Service
Corporation

STAR

A Note on the Sources
The pages which have been filmed are the best copies available. Every technical effort possible has been made to ensure legibility.

PUBLICATION AND MICROFILM COPYING RESTRICTIONS

Reel duplication of the whole or of any part of this film is prohibited. In lieu of transcripts, however, enlarged photocopies of selected items contained on these reels may be made in order to facilitate research.

THOMAS A. EDISON PAPERS

A SELECTIVE MICROFILM EDITION PART II (1879-1886)

REEL 53

DOCUMENT FILE SERIES (DOC-13)

D-80-001 through D-80-020 ("Bergmann, S." through "Electric Light - General")

1880 DOCUMENT FILE

D-80-001	Bergmann, S.
D-80-002	Deafness
D-80-003	Drexel, Morgan & Company [not filmed]
D-80-004	Edison, T.A General
D-80-005	Edison, T.A Accounts [not filmed]
D-80-006	Edison, T.A Advice
D-80-007	Edison, T.A Articles
D-80-008	Edison, T.A Autograph and Photograph Requests [not filmed]
D-80-009	Edison, T.A Bills and Receipts [not filmed]
D-80-010	Edison, T.A Bills of Lading [not filmed]
D-80-011	Edison, T.A Book and Journal Orders
D-80-012	Edison, T.A Clubs and Societies
D-80-013	Edison, T.A Creditors [not filmed]
D-80-014	Edison, T.A Employment
D-80-015	Edison, T.A Family
D-80-016	Edison, T.A Insurance
D-80-017	Edison, T.A Payroll Receipts [not filmed]
D-80-018	Edison, T.A Unsolicited Inquiries [not filmed]
D-80-019	Edison, T.A Visitors [not filmed]
D-80-020	Electric Light - General
D-80-021	Electric Light - Edison Electric Lamp Company - General
D-80-022	Electric Light - Edison Electric Lamp Company - Accounts [not filmed]
D-80-023	Electric Light - Edison Electric Light Company
D-80-024	Electric Light - Edison Electric Light Company of Europe, Ltd.
D-80-025	[Number not used]
D-80-026	Electric Light - Foreign

D-80-028	Exhibitions - Paris Electrical Exhibition
D-80-029	Menlo Park Laboratory - Incoming [not filmed]
D-80-030	Menio Park Laboratory - Internal
D-80-031	Menlo Park Laboratory - Outgoing [not filmed]
D-80-032	Mining - General
D-80-033	Mining - Edison Ore Milling Company, Ltd.
D-80-034	Mining - Mines and Ores
D-80-035	Mining - Spring Valley Hydraulic Gold Company
D-80-036	Patents
D-80-037	[Number not used]
D-80-038	Phonograph
D-80-039	Railroad - Electric
D-80-040	Railroad - Port Huron Railway Company
D-80-041	Science
D-80-042	Telegraph
D-80-043	Telephone - General
D-80-044	Telephone - Carbon Button/Chalk Cylinder Orders [not filmed]
D-80-045	Telephone - Edison Telephone Company of Europe, Ltd Accounts
	[not filmed]
D-80-046	Telephone - Foreign - General
D-80-047	Telephone - Foreign - Chile

D-80-027 Electric Pen

D-80-048 Telephone - Foreign - Europe
D-80-049 Telephone - Foreign - United Kingdom

1880. Bergmann, S. (D-80-001)

This folder contains correspondence and other documents relating to the business of Sigmund Bergmann, a manufacturer of electrical equipment in New York Chive he earlier had worked with Edison in Newarf, New Jersey. In 1831 of Bergmann, New Company, and Company, and Edward H. Johnson under the name of Bergmann of Company.

Approximately 30 percent of the documents have been filmed. The following categories of documents have not been filmed: routine correspondence regarding orders for, and shipments of, telephones; lists of telephones by serial number; receipts concerning telephone orders for Europep bills.

S. BERGMANN,

Hotel and House Annunciators and Flegtrical Apparatus of all kinds.

NEW AND IMPROVED PRUD'HOMME BATTERIES A SPECIALTY.

Now York April

Ma dear Ediam :-

money just now. If you can let me han \$1000000 by near Money you will bridge me over - Place amone

of you can do so

Cant do B

S. BERGMANN, Flegtrical Apparatus of all kinds. Hotel and House Annunciators and

hotel and house Annunciators and I paratus of all hinds. and the

S. BERGMANN,

Hotel and House Annunciators and Flegtrical oparatus of all kinds. NEW AND IMPROVED PRUD'HOMME BATTERIES A SPECIALTY. New York, May catra Part himself - Mr Elded sent the order for so monthspices Enf so But The Bells Swill sand by new bee chen to Will you place let me Edin home and I wild stip by litting me have from by date. am in a Lole. se Rame them appromed Without dely and return, and must to ship between Please and me 50 more Culon - The last last ween

S. BERGMANN,

Hotel and House Annunciators and Plegtrical pparatus of all kinds. NEW AND IMPROVED PRUD'HOMME BATTERIES A SPECIALTY. 1. Rec to la liet

S. BERGMANN Hotel and House Annunciators and Pleatrical Apparatus of all hinds.

S. BERGMANN,

Hotel and House Annunciators and Pleatrical Apparatus of all kinds. PS. Su m 6.1

Enf. J. F. Edian June 25 for Jean make Hairerale with Tony Com + Fel cords all complete, in small order For 12 5 each. By the 1000 Scan make them one dollar less. I can turn them out at once. I would just like are order for 1000 som as I am about through with the fondon work. Sau, dearling June 1880) WE My Garafrand to make telephone on foreign orders, I want dance a Cash Cintoner for 130 unmerfal Sets with fory rown please quite loners price deline free on board. payment Cash on delinny. In ay be able get your order for 1000 pets Tas

S. BERGMANN, NEW AND IMPROVED PRUD'HOMME BATTERIES

BERGMANN, Hotel and House Annunciators and Clectrical Apparatus of all kinds. Lot if they are not repeat. Can you thufoil so as & make ant casy to par again - When all right ship here about 35 ll good for work theme each

aug 5- 1880 Cdison · How will Leavens Polarized relay do for // how) Isuppase & will why not make it New York,

Edison

Edison neul Pack
cuice be out tonemon
money Dergman

newyork Die 11 Received at Brof Edison & machine shipped today - ever be out De Commenter 4 30 pm 1 Tunyrin 18(80) Edison 20 They boun account oor diaion sua few hundred dallars 9 paid \$ 923 am

Rema from 7 a Edison too the visite on a bedray of Burgeraun

1880. Deafness (D-80-002)

Following the appearance in early 1878 of articles about the phonograph, which drew attention to his own deathess, Edison began receiving inquiries about his proposed invention of a hearing aid. (See Thomas A. Edison Papers Microfilm Edition, Part J. 15:3-166). This folder contains correspondence inquiring about the current state of the invention.

Approximately 10 percent of the documents have been filmed. These items received significant replies or were written by individuals associated with Edison.

FRANK D. HATFIELD,

COLGATE & COMPANY,
Perfumers and Soap Manufacturers,
new york.

Menta Carer , 4. 6. Your line rekly, to my Enquire - have my Line of thanks for you Entity . mee more, & Can find no nother niffle dud anyon suggest to try one closer at boly man and suitable tastick in the Ear. imm being (in which I share) that the cutality of yelaboratory submice troughter Lope Said not hugen to for on for him on good untime in acti you could not kindly mail me a nepople sugar for boliane would that met Sound from the san, ele . I desume their you such sither by you land on on make one in a mountabline as jou may assume that I will find flag you for you trouble. If sweet it must have received to you Ingo in our stay in the lan a niffle would have to conform to pleastin tape of the En operatione Infor a supple to inswhit to project out of all beyond threat & surface would proceed the lying of one had anyonfally when a pellow, It in being it imperioring Sondon Dec 9 , St 75 Lowbard St. Timas S. Edin Ey Wens Sis . wish Ir Stants your for many letters I have received from persons ho whom you have recember - deal the Andiphone. As I amderstand you me slightly applieted birt diapress, I have advised on Home in Chicago to In send you an Instruct Which I hope may be of derine to your I shald

he greatly Miged it your shill omite a letter I hemain dear Six Secommending the Andything gomo very liney Richard SK links Which you bould selow Bru hi make public in the Pamphlets " home bann If there so amy the on the entjut, I should in which I can be of estim it a farmer of you Service to you thing they they they they me this the amld alm sond a Simplicate letter to me Ame in it-with line one pleasing Chicago I am omo in Fondom for the prosperie of Introducing the Sondiphone in this brundy, and an fan have but with ving

GENERAL OFFICE Menlo Park Af. No ship you this evis po mail an audiphon's with he compliments of the inventor Rd. Rhodes, who is de presentime crape, Mr. R. Sayo Le. illen to vace promodondon. mapromised that the accdiptions would be shipped to you in ductime fro chicago, the bush the instrument will reach you safely! Mishing min the a Very Respectfully four or

1880. Drexel, Morgan & Company (D-80-003) [not filmed]

This folder contains correspondence about routine financial transactions undertaken by Drexel, Morgan & Company for Edison or his companies. Material relating to Drexel, Morgan & Company's role as a financier of Edison's electric light and telephone ventures can be found in folders on those subjects.

1880. Edison, T.A. - General (D-80-004)

This folder contains documents, primarily correspondence, covering a wide variety of subjects. Some of the material relates to personal matters. Also included are documents that deal with more than one subject, such as a letter about both the electric light and the telephone. Documents concerning subjects that do not fall under the main subject categories are also filled in this folder.

Approximately 80 percent of the documents have been filmed. Duplicate copies of correspondence, third-party correspondence unrelated to Edison, and unanswered fan mail have not been filmed. Unsolicited requests for personal favors, for loans and exhibits of inventions, and for information about Edison have not been filmed except in cases where a significant answer has been found.

Chicago Electrical Society,

of the executive committee of the Cleage Obertical Dociety. I was requested to ask of you the factor of the loan or function of one of your new homeshoe, electric lamps. a great favor, and We simenly desire to we will appreciate your kindness. The society is very auxious to passess the lamp. It you comply please forward by express the ne COD Trong Respectfully House Happy newyears.

#1, New York, /2/80 & have to leave newbork tomorran may & and friends come tonight initeed of tomornant might Kindly reply to Wards Office Dr. muis head . Hr Came Newark Jan 2/80 JA Edison Sin for me with the Company Mr. Lowery World me when you were ready he would give me chance I am Truly to J. J Murray

Erman amour Jan 3, 188

EIMER & AMEND, Importers,

Southwarters

205, 207 & 209 THIRD AVENUE, cor. 18th St.,

Om Gokslamays 1876 On account of an favor Colities on the comme

as result of our offerty

all that was altoinable

which quantity is at my superition at the rate outflower - 414 to go good land quantity well start

at our supposition the

not toping to be farred over

Is unevals on free from the cost to lay ead Mogo sown here, will any to were a trifle . 5 . a

HALF RATE MESSAGES. THE WESTERN UNION TELEGRAPH COMPAN

fromine we and you trong by must a small frice of Fellurium produced out of Fellurium good one from California and a lattle occupie of Os miam biolisism fatin from California Good Northing you for the Kindness and afforming you broad as desiring our world that went we because wit last week we remain

Electric Pen; Press. Chelard, Gen'l Eastern Agent a Edison I am having a continual Call for the Supolicating Jul and have no means of filling order, because I count make nor buy the inh. Court you cither give we the Formula for making or start the manufaction of it of the Park so we Que Dupply the

6 Lombart Ctrate London It January Al Do. May Dear Saison My hearty congratulations to Rus we with the Fight. The Lelegram livent you re Novad Report you Kose not repliced to I foresumi because of not westing to authenticate that doe exiption possibly for atta good reasons. On the whole I runk of paul ax well you did not right. I hope you well be all to alloting brug back makind enough to give a practical achilition of it know. I have raid nothing about the ound of Shusons mission to america as when the left & was in Pairs taking a chock much needed wet I have no doubt however the matter was well considered by the Hoard before taking to confortant a step ar sending Johnson away from his work how. I know enough about the question, to feel the groundy of the returation owing to the perulianties of the English Falent law which have already been fully explained to you of we aread in getting ren Decalaines there can de no doubt but that we shall have the Bees Company at our meres, If we fail

in getting it - well I don't leke to to what weet be the consequences, tokun well explain it. That your processe how will contribute large to the carlier hearing by the attorney Contral I think, There can be no doubt and I thunk it is to make this alear to you and all the collaboral bearings of the ease that shun have been sent out to other reasons I made well that you chould come any for a whost time. The real and the sea rogge well do goes good. From may be come of a most for thering scaption have : you same fact to enjoy gravery. If you come? shall be happy to have you accept the hospetaleties of my home where you are here and chall endeavour in every unq to make your visit a pleasant eneal I feel Run that it would be. yours very truly

The Airest United States Calde Company, Limited

THE WESTERN UNION TELEGRAPH COMPANY.
This Occupies THARMHITTS and DELLAVEINE inchanges only on conditions, limiting its limitity, which have from case by studied said in only to your content. Error case by studied said in only to you for the property of the
A/R. BREWER, Boo'y. WILLIAM ORTON, Prost.
Received at 1,3 Police
others Odien
Clarie Constant
Manday to talk
Throughout the water
Falur the batteries.
The live
Broken Broken
2 Broken
Ī
HALF RATE MESSAGES.
HALF RATE MESSAGES.
VI A GWAN THAT GAR THE WATER WARRENTS THE
THE WESTERN UNION TELEGRAPH COMPANY.
THE WESTERN UNION TELEGRAPH COMPANY. Discourse of the company of
This Copy ary TEANNAITS and DELAYERS is manger only or condition, limiting its limiting, which have been executed by the contraction of the condition of the contraction of the contract
THE OWNER OF THE AMERICAN ASSESSMENT OF THE AMERICAN LIBRORY IN THE OWNER, WHICH HAVE ASSESSMENT OF THE OWNER OWNER OF THE OWNER OWNE
THE OWNER OF THE AMERICAN ASSESSMENT OF THE AMERICAN LIBRORY IN THE OWNER, WHICH HAVE ASSESSMENT OF THE OWNER OWNER OF THE OWNER OWNE
THE OWNER OF THE AMERICAN ASSESSMENT OF THE AMERICAN LIBRORY IN THE OWNER, WHICH HAVE ASSESSMENT OF THE OWNER OWNER OF THE OWNER OWNE
THE OWNER OF THE AMERICAN ASSESSMENT OF THE AMERICAN LIBRORY IN THE OWNER, WHICH HAVE ASSESSMENT OF THE OWNER OWNER OF THE OWNER OWNE
THE OWNER OF THE AMERICAN ASSESSMENT OF THE AMERICAN LIBRORY IN THE OWNER, WHICH HAVE ASSESSMENT OF THE OWNER OWNER OF THE OWNER OWNE
THE OWNER OF THE AMERICAN ASSESSMENT OF THE AMERICAN LIBRORY IN THE OWNER, WHICH HAVE ASSESSMENT OF THE OWNER OWNER OF THE OWNER OWNE
David Jacknowledgement from leach Mo, acknowledgement from leach is aughting correct, austress A Jacknowledgement from leach A Jacknowledgement from le
David Jacknowledgement from leach Mo, acknowledgement from leach is aughting correct, austress A Jacknowledgement from leach A Jacknowledgement from le
Desire Comments of the Comment
Desired to the second of the s
Desire Comments of the Comment

T. A. EDISON

Thomas A. Idison deq Boar bir:

Oretorea please find ter Mitchia scent for per per adgravings. I also thankfully acknewledge scent of 25 per & copies of Mr. Istograph is Associated Mercy adgraves.

Jan 17/20. Genra always ... New Jan 17/20. New Jan 18/20.

[ENCLOSURE]

A. H. RITCHIE,

New York, Jany 12 1880

The thing of from

frate.

Heat N. The Western Union Telegraph Company, Letter______
From Cincinnali O fan 16 1880 ______ Sheet____

Thomas A Edison Esq Menlo-Bank nf

Trus Ediver; I desire to go to Mexico and antial america, but having no business in view, see no immediate prospect of returning to those parts.

The idea struck me, however, that foreibly you he'd not dispares of your right to the "light" for those parts, and you, knowing my knowledge of the people, curtoms, and language of the "Rispan Americans" republies, might give me the opportunity I so much derive. Or should the light be ont of your hands entirely, could you forward this little to fuch parties as would see mast likely to have the matter in charge, together with ouch comment as you might choose to make in my behalf.

I congratulate you upon your recent success, the greatest of the age. We anxiously want the rising of the Menlo-Mik Sun

Very Truly Friend

Chas H. Billings W.W. Tel Office Cincinnati'0

Mr. J. A. Edison Den In The members of the Franklin habitute me all ven much excited about your land and every day at least hall a dozan as k me theter not to have it for our breeding on the 21 th Mr. Onferfridge Of the M. I. Mint who saw it in operation, thought you with the induced to let us for in the histories ones, and a Carton filament. He proposes to describe it was I have for made for him some langer Mides of the Generation the Mercun, purp ite It's he is very enthisiarpie

in defail his servedes will be very interesting. to in your letter plant year he have promised the lamp as som as it should be hopich exhibited at the Tark I hope this expect will be granted pledging myself that if will be only inhibited repured to for without delay if you so direct. Please send then one of the unless ones by Esperas and much other Secretary pro fer we are awfulsh.

Maxhungar 1/15/1980 Rof. Edin Only too of Frank Thomain's meters work in tend another there today Tel & HJohnson over heif tweight withour He ein adjust Arani he mil d MH Painter 303/

tay of the Franklin institute has requested me to give some account of my very interesting visit & gom laborating at the next believing that you have accomplished what all other investigators in the

same field have failed being carbonized, and in doing). Confeer also one of the lamper. that I came to Mento an imperfect lange Sark diffused to be, would answer the purpose if not skeptical, at least simply to show its construc vez critical, knowing twon. by furtied Experience have no bolt that the difficulties in the way you are overwhelmed with of a practical solution similar letters & request of the public of income but it is the henaly of - cent illumination. greatures, and if gon would like very can conveniently oblige much to be able to show me thus for I shall The members of the metate be much indebted one of the paper home she four truly better histo for

no of Rhiladelphia Jon 16 - 1880



From Ro. Rhila Philade 17-Tur Edism map Edism dvill you he Kind hough to go an no your tommer afternoon Our Jan lund about two (2) oclock Bed I & Dan derant & spent no you & tuming to you Sto Robinson Ofternion about to oclveto -- Bussu Robinson Robinson will be on hand at two much time to Reprod Jan 17 th. T. A. EDISON, He le Robinson

Will be on hand at two oclock but will not have much time is spend Tabdison

Wes merced a switch of cause - you of Town come of the word of Memorally of Gennify wants Tempylvania R. B. Mas of invited a few of free to got Thiladelphia Jan. 18. 1880 over to mento back with mydear Edison: private car some day this I have waited all week, and I wanted to this afternoon in the hope know whether it would of getting) you on my wire be convenient for you to as mr. Robinson tota me have is come and whether this morning) you said there is any choice of you would be on the look days. Of there is to be out for me about 2 oclock anything special on any I was quite disappointed particular day, that is that you did not appear; the day we want to come. because I wanted to ask The party will be composed you two questions the answers of come of our very best to which I wanted tought. people and I would like In the prot place, how. to have them be things " Frank Thomson, Den. mgr. at their best. Of the nume

ber will be the distinguished these effects as that he can physiologist, Dr. Weir mitchell. have a complete apparatus The other day & described made for experment. to him your currous observa-I wanted also to try the tion upon the effect produced motograph receiver from by rapid mechanical vibrahere to mento the afternoon. tions, and its analogy to hime is now in excellent that produced by a intermit-Condition and I wanted to tent udiced current, We compare your transmitters was very much interested in there with those hr. Clute the fact, execully with reftathed to me on from evence to nervous sensibility Harrisburg the other day. He was spoken to me about Dr. Sent wanted me to it leveral times and has ash is you could spare now asked me if O would him some of your north Carolina monagite and also ask you, if not too much Specimens for the cabriel of trouble, if you could rig Duch platimen Rands as you up come lost of a rude had plunty of, with the locality? Contrivance just to show him Please and regally your on wire tomorrow & Reorge J. Barker.

Dus. Cable Cay nydear Sir, Sam here again on Ishauld like to call on you before leaving but fear to do so without permiss because I see by the papers that you are harassed with visitors and I have not The slightest wish to witnesse anyseef Hoping you tyour quite well, Genden, dear his, Consommisse we four succeely

H. J. Davies Genli Manager W.E.Dodge JuBate the Onla whethy it = pls find what you can should newlylan

Chicago Electrical Society,

Dear Dir. be obliged to procure the permission give wet the address of the furty or factive we are to apply to Very Respectfully The American Shoe Tip Co.

147 No SUMMER STREET.

Boston, fauld 23 1870

F.A. Olisan Sear Sin Sull sell

you the lote you enjure about at \$1000 pm lost

Church Inches

levo	dun -	- 25		lee la	. Gov	dzene 1880
	•		67			
y.		A Park and		e tradicana a a a	The Many of	y to wal
1				N III	in the	who was said
						J.

some non have seen Some by blechrich ? Whatever you It please decline any more talks With reporters - Depend upon it they to wo good with almost the certains, In Harjes brokes the amount the of the ble inst.

that he hopes com to be able to get your shore of the money of the lide. Telephone (6)

Vinton de Jany 84 157

IA Edison Esq. Menso Park W.J.

Friend Edison;

Once before I have had

occasion to address you from this place. and while doing so thought it not out of place. to recall to your wrings our framer acquaintence while operative in the Concrement Williefs.
You were then I though Toport Opt, Lewis &

worked "Lol, ckt". Will adams I think, the city

Jink water!

S was in hopes that the litter referred to would be ready you to receive in personal attention from you, which would have afforded me very grain satisfaction to keasure, and at the same time would have provided me with a memonto the to the the same time.

of the N.A. Edward of today. I am at present engaged in Photography. but ofcourse, still hamler ofter the sounder & vey. I endon you chairs of muself & daughter. Nime may have altered may features some, but The "shadow" may are your mornery of me.

Shows of course Kept myself posted in chetrical materia, and think that there is a gest time coming for those foundition with the science, and it is will a view to engaging actively in the field.

which I wow address you in hope of recurring attention.

S drawn to was a fully as possible by detals of

I desire to sum as fully as possible he details of species of lettice hapting, and would be gled to obtain circulars; if you have there out, I wish also to origine regarding the means to be adopted to inlight, or introduce the system into against use, and of lower, lifty or that rights may be obtained. I not the latter, I would like to assertion of I could rear reasing you services of use to the company, they are some your services of use to the company. I don't be also from you at your earliest convenience. I take the liberty of and a capaintened to subscribe

Fraternally yours.
Milloan & don't febrummet me things

tolen do Ine Atume foror to all proofs sent rand return them

Rand is made of mical will is anot affected by heat a ord may be the bull way of will-My the every as I chance to benow something of yourse terms with Meser Dorsey, Robinson 4 61 8 way, I there

he very glad to introduce to Jon at gentleman of large experime in mines I who with the mines of the most many of one to I whose i deal I think him in accord with your own He will be here soon, xleviel Leud or bring line to gour of me deine, He is views have to reference to reducing grees, but forthel weins, their reasoning is word, vacuus to be conely it is conect, the abiglet known ide I have of your buggettions his about formation, of would like to meet lind, tradvise me,

Kristiania Janyskovo Jonas Wendtoni No aus

Strictioner, Holbergey, 23 Jan. 26± 1880

D. . . C. (

Your pair of 14.185 No. 1879 was duly second. Please secience my thanks for the beautiful sicture. Having been deliged by sick-ness and westing for answeres from the most promised namelogists in these countries, I will now so has answer your green peleting Torit.

This mount is very rue, probably the greatest lot in the world being in the laboratory of this tiened and

it is not much over 100 graw. Am-

receiving a few grows thereof some years ago. The mineral is found only in North Way on the is lands in the bay of Breing (a town afew mile from this time) It is possible to receive it sometimes but in very small grantities from the former leving on these I should the price I want to price. I am respectfully yours on the your Mentstroom

THE FULLER ELECTRICAL COMPANY, Office No. 50 Names Street,

V. A. Edian En .. New York Jany 28 48 80

Meulo Para A.J.

Dear Fir: I have yours of the 232 inch. acknowledging receipt of description of Dynamometer, and expressing desire for some

of my publications on Electro Metallurgy. E enclose in this some clips out from the Engineering & Mining formal of March 16# 230

430 1878, in relation to Refining of Copper Le. as they are the only ones I have importunately

I feel obliged to ask you to return them after perusal.

I will in a short time send you copies of Subsequent publications in the line of refining

Respir

Jend them Gock with

Ahotograylıs, Ængravings, 76 NASSAU STREET, New York Lany 30 11880 Prof Thos W. Edison ym asket for when yn wae'n last (Maona & Ellamine") fyn have not purchaeolike lenne cleewhore Iwould Le

also indicated to me tunt you are willing to have some one moshpale tuo pur getural direction has having time to devate to arrangement you would bewilling to ma surgarding the matter into stal

2./2. 1880 WA Dear Lin I received your Rind letter only yestenday - I play en very say in another M town, therefore letters sometime travel after me gente a good while - but after "all I received it and I thank you for it I thank you also very warmly for having accepted my ledicar toon which sprang allto, gether of the administrons of home for your good servines — I need your Expose an Sinibner. with the greatest

interest - as I near you to the Concert on the 14th Jan in everything concerning you - of course Brooklyn, 9 Know too well, how your self of your kind tome is absorbed, I am no Evison at and see you as all _and I have soon as 9 will no time for any be able to do do, Thing - it I had, -you do'd not underland me alltogether - I had no ivea what Lee me in Menlo_ Park - and I would ever of inviting force you to in=

vent somethin beautiful to strains of my Violin I am dear Lin I hope - I am Jucceed - 5

am Luxe .

THE TOP teleglig help Baya لمفت

with Edison that county to clow the prature to There's a high toward family here that claim orlationship with you Ed her a Doctor

Folling a Rosition as Ofr, mend Downer has offered or Long you think I would be handy man around go future developments of the rights +C - I have a by fun for frend please give shoot to all accurate acchaing by John to the for your invention, going to tall on your on thursday last but downy informed me you were in for a dig please of you have give he has plant for palary or hours perview required.

The Mana chadee

The Monly

PM Haughner

allow me to Congratilate ye on success of Electric Light his if may illuminate four love of to the haghest foursele of fame. Bent you honographic Setter per Dety of Para - understand. Telephonic Communication is about I be initiated in this dity Send we the papers To Rox 443. Ris de Janeiro 5 Geby 1880.

T. A. EDISON,

Menlo Park, N. J., Flet 1880

Frank. M. Langhbur.

Cor Colden + Bfraken St Newark

See if Sutherland owns interest in

Patent

Caundion of Ja get it for the state of the st

Sticklin & Griffin Eng Dan Di At the Palent go privace in the Polyform as seen as pissue as we are about levely to let it nh Your D. Louis Brotin Lly 10,80 Off Up Dean Roundy

o tel 13, 40 miles of the second

Refor possibilistifation.

M. J. A. Edwan

Being engaged in some investigation of the rounds of speech and experiently of the rounds of speech and experiently after consoners and opinaling that the telephone gives the best would address my sife to go on to ask of it would, my sife to go on to ask of it would, my sife to go on to ask of it would, my sife to go on to to ask of it would granting telephone. Ask the sieruman and of your they form, to be a de to see to the sound account by the graphic me to advant account by the graphic me to many suggestions in as a said to the form of the said of the said.

Annum He will Bell received how make for the course of form charge mare by because of going that if you mill not think me impossion for your house of form mothers as their house of formation of formation of the house of formation of the house of the mothers are formation of formation of the for

include black to you.

May dear Edison: Dr. Eviler is well known to us here in Philadelphica as an investigator in sound. He mother assistics Helm-holly in come of his most important investigations of you can grant his request, I know you will need no urging to do so. Nowehouty & Barker.

Phila. Feb. 14tts, 1880

" newyork Isly 11/80 Thomas a Edison. Shall I find for at home temorrow afternoon for half an hours

en york, Geby 11th 1880 that you were intending Bachelu heeded a tittle sest and would also leave for a spell, it seemed to that possibly you and I might agree whom some arrangement, wherek o could become general managel for you Misule dud resh. practicul knowledge of Shee but it has occurred to me that could advance your interests knowledge Dr and the technical acquirements The Intime of the application of Mechanies is one ! great promise, and is a field where inventors can reaf great rewards, besides the many lentative expenments which you are constantly making would afford to anyone who is studying

unequalled advantages to demonstrate theory by practice Journal Jalowaner IN FEEL reso is 550 Chi seck. Couch know and The heari neu would

The Mento Park Manufacturing Co., New York Wely 19th 1880.

The Strains I I I

The recipt (at bechiving of U) four pack-uge of letter perturned to Volyform. for which please except my hunder In fellow add you knowly formed emilling in our line to We Broadwing Hoon & New York

Mpunt Truly D. 10, W. Letun

Sund Regrets Foto My Dear Edism I purused Mr. J. a. Burden thup I would write you a line and expuss my hope that you availed fo to his huse on ledresh every in the occurrent of a aception to the minny luqueers. He has I believe aent you

a formal instation Please consider purely yns tol R Latury 2 Ph 16/20

[ENCLOSURE]

Mr. V. Mrs. James A. Burden At Home,

Nedwordwy wening Nedwaeg sighteenbi nt half pusterisht zebash to meet themenbors of the American bastitute of Mining Engineers.

Resort

Orexil Hange Rawrony power atty

Can do not the from kere

it is too tamplicated see

Kanga

1 went Pout my Ho Codion

[ON BACK OF PRECEDING PAGE]

Sriffen.

Try and fix up Bergmann

at QM+C. see his letters you can

probably binange to have the forward &

Collect his drafts,

Illinois Central Railroad Company. matters Illa Station, 726, 18 Thus A Edison mento Park A.J. Lear Sin. For many mouths I'vo Present & and - real but always dismissed the though leel you were pressed with more important business, and my letter would be a weste of home Station. Have con not or can you not invent so simple a thing as Who I am. The sohood mean will run a bewing trachino who boarded absence Fathers the by electricity? If so please and one price, namere so winter you were home sich at the Link & who assisted. I may become the happy you in inventing that Suffer possessor of it! I have a & Duadruplex! I have followed " lovely Inheler y milean A 8 How through all these years as standing in the corner of my Hour Ethento have been (Helegh) of but am undblick published through the brees run it low I am going bletter & allow meticing am truly Stadoffour sidecess! Sout Swallyon owe aduly byour self. however in some love of invention, Please farm and

> mas In f. Powers: matteron Cook Co

with a reply, only name is not mus but

Amos James, Proprietor. mustife-efficane HURON, MICHIGA -18 80 you to make it a share thing so that some of Those daniel Chewspapes will have to take Gack what they how said about it but what I will you for is this I guess that you will remember Sew ady the young man that was at meulo with Jony Bruse when Thurly was those he drives in my low expertly shore and

he has always wanted 5go back and work for you he is not afraid of work he is willing to do any Thing from Corning the had to book Keeping he is a good fellow I would gu kin a place at something has Father gon to Florida I Emplow ground the reports don't you think They look better will send you them regular Every mouth and also hope I can send you a dividual before long flow Cluster and let me Know what you can do for Sew

The Edison Telephone Company of London Limited. Dr Willis of the Guion S. S. Mis consin with whom I crossed lash summer the is desirous of varibling through your Laboratory and Chaping hands With the Proprietor Please accord him the dual priviley and Charge the Some the ge Your foreign Emborry A. Shrhuson the Doctor is a good fell N/19. at I am on the moonlight with the Hirls

NOTICE

fay what you please thank 18 bat 12 of golder houses bit Feb 22 15 80. Mr Thomas Edison Mento Part N. J. Seur Sir, This morning my attention was drawn to a fine in the Philadelphia Receord. purporting to be statements made by you on the exercess of your blacking hight. You state " to a man get up on invention that is a mere toy, and of no carthly. use nothing is said about it. But as soon as a man gets up an invention that is of great. commercial importance, that copflicts with long estaplished Monopolies, then they is a general rush to endeator to, full him down, and show after all that he has accomplished nothing. Now I venture to say you never, extered, a greater truth that that? I have experience Short truth myself. I have laboured night and day with my mind & Strength. for 30 years of my life . to construct a perfect ,

Prefrigerator. Five years ago. I claim that I accomplished the work and The Patent Office gave me Two Patents. " One for a family. Refriguration. He Other for bar Refrigurator. As soon as I Built a Bar and tested the friningle before the Public. It was pronounced a perfect sures by, all classes, what was the result. as soon as the Stock yand Companies between It Louis & Boston see, and become comment. that I had a car that would carry fresh beef , any distance, and at all times of the year. in a perfect state of preservation. They formed a viny to pervent me in running my bar. got the Rail Boards in with them. To bluff me down. because I could carry 40 beeves in my bas where only 18 \$ 20 live cattle could be transported. It would reduce One half the frieght on heef to the R. R. Eog, and It would do away with all Hock yards for the simple reason. That very battle rasser could butcher his own beever, where ever fatted (in the vicinity of a Or Roud) and ship them to any distant Market. This shony Monopoly has to resorted to every mode of

of Strategy. to Bucker me out of my Patent. To get The Controling Power in Their own hands and have used every meany to discourage me in order to induce me to sell my tatent for a trifling sum. But I have stuck and hung to my Patents, up to the Onesent time, and now after 5 years fighting. They begin to gield. And I believe to day, that I have the largest amount of money on my side. and of course, the balance of Tower and by next year I will win the day. Jon My interest in your succeps, is next to my own. And I hope soon to be able to present you with as nice a bolorado, turkey lobler hilled tongue in bolorado in the month of Frequest: as you ever bought in the bits of N. york. With my Kindest wisters I remain Obespectfully

BIADE NO. 1. THE WESTERN UNION TELEGRAPH COMPANY

Western Union Telegraph Compan

Thus A. Edison I think of thinning off that bondage of this office, which has lasted eleven years, and strike out for the engineering field, That is, in elatrical department, I ful cramped here, my full understanding and postableal experience in completation wire and machinery will fit me for the management construction and working any Many, from your Quadruples down through the Telegraph field to the Telephone and Disheat Systems even unto the Elictric Light, I have Rept pasted and am quite up in understandy, so as to operate prostically by setting up any and kind of copies machinerey at all kinds of delivers, you may remember that I was

one of the few in Cinamate Office that

Hi, Therens a full skilch diagram of the Stoke Repeaters which was some for those days, I wish a letter of introduction from you , to whom it may , Concern, that will assist me in wasking up"a better claim, some of the departments reformed to suit nour conhessience I have a safe the as to time as here \$ 80 % for month and will not let go file I hask something better, I should you happen upon a "missing link, Mar you could supply by recommending the undersigned I will appreciate it also, I fear you home been bared Considerably by Operators other friends () who hardy knew you in your undiring patient Toil at the fast of the Ladder above the tap of which you now stone nomed is all that I ask of you in the letter that I ask of you in the letter satisfy come body so to habits we besides beginning that I A Polarce O Can

THE GUERRANT Flectro Engraving Machine

MACHINES SOLD WITH LIMITED TERRITORY TO USE THEM IN.

P. O. BOX, 157.

Address, G. M. GUERRANT.

Banully, Ma. Alb. 25th 1880

Pof. Thomas N. Ellison 1. 1.

Devoling a Called to Su you several days ago bux audion Not do So I had a Valuable invention that Will be issued soon and I wanted to Su if I could get you through your agent is for me I have gotten upsevered uneations but for want of proper monagement how done but little wint here I concledible to know if you will do this I lector stiff of lugraning done with one in the infancy while I beak you have this when it in the infancy while I value to ask a favor of you which would be of or not value to me that is to give me certificated Saying your had been the machine He had been the machine He had been the machine He

THE WESTERN UNION TELEGRAPH COMPANY ner Connery a READ THE NOTICE AT THE

American Company.

Papers the Other day and Seeing four mame my mind was Carried bookward 15 years and I was led to wonder of you were the Edison that we use to Case little al the boy that alex Stephenson Caductor on the fort Huran division Colled his boy it also Come to my mind if you are the same of any recollection of old times end Come across you in the whill and excitement of diesent hope and ambition of you ever recalled to mind farties you were then acquanted with Sometimes I Catch myself asking the question where such a one is & for instance McKenge of Met Romans Kum of Battimore Is lost all trace of them I your find time you might drop me a few Jines I use to be at Utica yours al Kennedy

THE GUERRANT

Address G. M. GUERRANT

Banville, Va., May 4th 1880

Rof Thomas A. Edison

Geor bir
your extensed favor full to hond
giving me address of your agent iso
Kondon and baying you would signe
Contlicate for me if not offictionable of
the Euclosed Conficate is offictionable toouth
be thought for any this you may say
for it with your primition I will person
to your agent is condon one of my new
includion as seen as I com get one ready
yours buy Rejentful
fill prierranh

Phase added me at Charleston S. C.

on ih I aind it home Drewel, Morgan'iz Ca Only I hope it will be New York March St. 1580 a better booking Ring Friend Edison, Ran Re Bush in The Thease with me a few lines , saying in general terms your prospects are good or better how ever or something like Rat_ a fady in England who Ore mish to oblige, wants Jour anthograph - If your a Thotograph to spare please put your tigachere

When did JAW lear Meul rober with return Lasherted tree him here Hundry theor land nother Jomhun Jak Paris Mach 8, 80 goo P.m. Calison Manle Fork 17 Expenses carrying business abegind me to draw night Charleys Ville Stick I faid avoilh scanded have Dropply fay by Cable admine white gray continuously, mailed fifth for natification 33-

OFFICE OF EDWIN M. FOX. Attorney and Counselor at Law, - 140 hassansi New York, Cle 13 1880 by Griffin \$1400 - 1000 in bills and my cheek for 400. The Galance dwie seve You in two or three days. My wie & plain. O send yn my cetipeato 4 3 Sh Electric Cyat as

The Edison Telephone Company of London Limited, Aussian Claudes, 11. Queon Historia Styles is: c. Tenedon 1 10 1880 19 words a nimute Through Malta Mitralter Cable 980 Knots Paper Brown rallen Kela

T. A. EDISON, Menlo Park, N. J., March 15th 1880.

Do you wish to make such an arrangement as proposed to the Camer Thursday If so can you see me Today with a view to immediate action Please an A H Harbrock we don't go into Enterprises in such a precipitous Manner 12th // Bolliet

John R. Porter. Grosvenor P. Lowrey. Geo. Wales: Suren. Chat Brants Stone. Geo. S. Hamilin. Win. L. Porter. Porter, Lowrey, Scren & Stone, Atterneys & Counsellors at Laive So's Broad G. NowYork,

P. 0. Box 1836.

March 16, 1880 . -44'

My dear Edison:

Enclosed please find two bills of Mr. Serrell to Drexel.

Morgan & Oo. and to Fabbri and Lowrey, for patents to be issued

for recent improvements. The bills are sent to me by the Fabbris

for my approval, of course. Do you thank they should be taken

out? I assume that in some of these foreign countries we could

get on very well with the principal points covered, whereas in

this country we would have to cover everything, because of con
tests with other people, who seek here for similar protection.

I have arranged with Dr. Green to go down to Menlo on
Thursday at one o'clock, to have a talk with you en the subject of
the Metograph. I repeated substantially what you said, and I
think it is wise and desirable that you should make your view of
present relations with the Western Union entirely clear to Dr.
Green. Do not hesitate to express yourself with the same definiteness that you did to me. It will be useful to both parties to
understand each other fully.

Please let me have the bills and letters back by mail,

with the expression of your opinion and wishes as to whether these Patents should be taken out in all these countries.

Very truly yours

Thos. A. Edison, Esq.

Enclosures:

Letters & bills of L. W. Serrell.

. Ilearne all at lo cline a created

Snelennee:

hos. A. Edlach, Paj.

esoirs duron eventa LL. at two neutro od binente estat events Yory truly yours

with the empression of your epinion and winder as to whether

New-Brunswick, N. J., Mcn. 16 1880.

dear Sir.

In regard to Search against "Mento Pani" loto, you orduck I am unable to give acoust least for line initions making a complete Search for Coursey acces, while you do not ask for Quede, I concluded not to make the same without you say so twich will make the search more expedient, the statement you sent done not show ace the consequence, please let me Know what to do, and I will compute Reason in quies orden, Lount C

C. D. Kin Cline

Porter: Lowrey, Soren & Stone, · Atterneys & Counsellors , at Law. No. 3 Broad St. New York. Widnesday March 17 1880. Dear dir:

Me dowry direto me to write
you that Do brew and he will come not to,

Mulo Park tomormo on the three relock train

Very Refix
Francis Jordan Dear Sir: Thomas a Edison Esq. Shuls Park. H.J.

ES MyMeringo Hours

Mar 181780
le L'Heile Learch 18180
Make a complete cearch on loto from Isace Thornales Conveyance
Try true
Tall due so

Western Electric Manufacturing Company, of Chicago, Electro-Medical Department, Eastern Supply Depot, Dr. T. CLELAND, AGENT. Selar der:

Jaw just in receipt of fortal
from Ist Polis telling one I will have to
apply to yourself or his Batchelor for the formula
for the Edison Supplicating Jule, and a we are
very quarty out it will be a great accommentation can get it from, this wick and, qually oblige

Mymar 18,50 T Cliland No and

. Western Union Gelegraph Company New York Much 19 1880 George B. Prosectt, Electrician! that Edison Esq Mento Perk N. 1 My dear Chwalin I am very much obliged in receiving y last week about the Sale of the European That alshows I had prefored of course a life affirmative answer which cutainly would have planch bottom my Curopen friends and myself. May I transio you once more. I took the little a couple of weeks ago to send you a copy of the Dry Placer amalgameter Ct / Denne Colored pangalet Snaster of Bernell Prend I am a lette, intout is this potent and its Suren Ochago you contractled I told you this as early as 1877, who you pound the find plan and Benneth letter to me, about the Tutyet, and taid to me i'll good plan ining more

Over and over ageing sweat times A good plan! I recolled these words of you very distingly. Need tay this there works out of your genial mouth have kept up my life and mid Languine hopes for botto times to come en in the dull humbrum of Outing blectricisma exectioned toping to taking to much of your valueble line, and finish by requiting you much respectfully, regardly and politily. to tend me a few lines through your Lendry expriming your extremes opinion of this Amolymuter, to the effect of crusting or Reviving my hopes in our patent and its hoped for finantial coulds is the mind Jutin. I'am fur you can tell from a glove, if it probably is going to be the "immune thing " Some parter claim it to be? Will you ablige me One edministy Millimit St. Bok Say to Bok Chats If Bennetts wach closis as herays Rom 20 - 190 Bing

Mar 20, 50 My 20 Aldison

Will be in Mence this Evening Edwin in Fox

The WESTERN UNION TELEGRAPH COMPANY.

THE WESTERN UNION TELEGRAPH COMP

T. A. EDISON, Camot come to right

Dear Sir received the coffice send you of the Temperana Herald, the Organ Union of New Jerrey. The paper will be one pearl old the first of april, and while it has proved la enccess in es far as it has hiel, and only Runk \$ 3.00, yes The struggle has been great be desire how to scatter the paper throughout The State, where we feel ende it will do good, his we

have no means to do this, and have modered this spring to solic. I help from the gentlemen interested in in cause any assistance you could render I no would be book gratefully received.

Your land Respectfully.

Mos J. A. Beecher.

J. C. REIFF. the best seats in the me trught as am anxious & learn what was teliproft me, otherwise lines

paid "Rete air mo

The Edison Telephone Campany of London Limited. London Weh 24 4880 My DEar Edison I have now 4 series of 450 Cells Each- Fuller = on my Lamps byex I have not enough grantily & outly 2 lamps without Eausing a slight Variation in the 1er when the 2nd is put off and on The Electro Motive force of 45 cells is not oufficient. Eicher I find it requires 50 to Gring there up to a superior yas fex I have therefore today ordered 26 additional Cells to Gring my 4 deries of 45 up to 4 of 50 - It costs like There "aux I expect Typidal Monison soon and I am deternimed & do the thing picker . I have two Elegand Bronze Knights on my Deak - one on lither side of my writing Tablet. The socket Laup are in harmony with the Jegures & make, a really Elegant Combination . Then I have too Brackets outto Wace with handsome relief Thosp hanging behind thew.

The Edison Telephone Company of London Simited. the effect of the E. L. whow which R. Very much admired = My Circuit is really made outho Wall & Desk so as to be seen ax a glance - The multiple are excitquite a good deal of interest. Well try I give you an Idea how it looks 1 - 1 Box to dock main cht. out of week Coprous and to chow Patting on to Shutting of of House digits to Battery in 2+3. Wall Brackets 4- Cord (7 Strand Copper) - with another Cord Tap. 5 x 6 Bronze Knights Rolding & Stoff with Edine E. L. 1. "-7- main Cond? Eds exposed to show open cht.

The Edison Telephone Company of London Limital. My Desk is a handsome Souble clope Mehogony - The to To the right on the wave. I have fixed a regular Telephone. a Loud Speaken (Cash Im) - and one of my Bell Tel Pattern Clockwork receives - Thus I Can give Every book of Telephone demonstration - Sound tain I have a Crossley- a Blake, x au Edison Fransmitter - On my wall I have The 3 Diagrams of the Carbon Principle - nicely framed - on a chelf I have the models made by you for me when in nyork lately welleding the Paper Speaker (which by the by Tacks Splended. Valso have atmall Thougraph ou view . My windows Can be under adsolutely dark. I have 2 good Gas fels . I am thus particular in giving you The arrangement of contents or my Office because Iwant you to King What is was that a couple organ

The Edizon Telephone Campuny of London Limitol. Mansion House Chambers . Rooms 19:113. friends oan last nightendon Mess MacDonald Gent manage and Chimery Chief Editor of the London Times vicins me by appointment at 5 pm .- to remain a few winnles . White I rechthew = Bose Brown ~ a couple of Others being stationed Where they could do the most grad Telephonically = I had the day before were weatines & MacDonald that I had the dights a Operation - He said "Lie Come Hee them at once thring our Editor if I way": * they Carrie = 'The heaviest grews in air England -Order of exercises - A. Eplanation of Elisas position in r. to scientists & fellow avestigations - in 72 to newshapens rother visiting Laboratory - Paint - & any fault one of two great openess of Character not seclusive by nature B. Description of works - dight & hibit machines Laborating we at mento C- Explanation of Lamp- Carbon Multige

The Edison Telephone Company of London Simited. Mansim House Chambers. 11. Queen Victoria Street, E.C. of smoon white. The sande divide are finely a re to maintenance of cht contraction to preservation uniform resistance to A. Exhibit of Lauchs in variety & way - Ehiliar tring - Houvering - audition delighted. Comprehended point under on Once as to adjusting course of couply in accordance with demand Remark. "Once not an authority on Electrical matters": Result of exhibit - all I could disin-E. Ehelit of Felephone exchange cadjoining room) Explanation P.O. contest. Etracted unqualified opinion 20. people in Error in claiming Telephone - or in attempting restrict its growth : A. Exhibit Telephones in my room - heales in of - Various adjustments Edisonia Microphonia reve - Normonon Wire - Induction He to - Soft. Loud + Conversational - delighted = 4. Explained in one hours Lecture

The Edisan Telephone Company of London Simited. Monsom House Chambers, Queen Kictoria Street E. C. listened to with utwood attention occasional, interrupted by willigent guestion. Mecosphone chown & a guest no magnifier of bound - but simbly a Sound . or Telephone . Transmitter-ie Edwar Telephone - Deagrams Whatined - In short whole entject made so clear as to Elicit remark "now I comprehend the Edison Kughe Prece Controvery as I never did before. I am indeed gratified + obliged for this ducid excloration " Prece heartily excoriated by me I show to have applied for lating for applying micro to relegante with Edisons Bliphones in his Elicited justification of your Course torrand Onica. but expression of opinion that reither Kieghes in Prece understood the principle Of the micropdone assectate by McDonald -

The EdisonTelephoneCompany ofLondonSimital. Mansion House Chumbers, 11. Queen Victoria Street E.C. "I visited the P.O. lately & Preces Choward we your Telephones at work on a wire upon which Telegraph bisto were at work , A which goods out a loud crackling sound-Could not enderstand a word *Could searcely hear any thing hux the noise - Then I was shown Mecrophone Transmitter MBell recin Which talked beautifully - The reciency being absolutely dead diering Cessation of conversation - (I subsequently found That this wine only ran into the basemenx The difference of Conditions Were nax explained to me. but I saw there was an extrardinary difference of they the Justs there at rest- This excited My suspicions, but I said nothing form having your Telephones in daily operation receiving our reports from Reuters I Knew its Expadilities . I thought it best to allow Ones to play his hart

The Ediran Telephone Campuny of Landan Limited; to the end . I cause awandon convinced Infact without the Shodow of adough that an attempt has been deliberated hade to decire me, I mean to make use of the fact at the proper time from what you have today shown me Especially in To & the Effect of Induction, I am now Certain your relephone was on a long wine or Cabled wire - their on a local CK+" = Na! Na! muts for us: (White & I are going to send competent Experts to the 120. & interview Prece in this sauce line reget additional testimony against him.] Interview Chened at J. Pm. Closer at you. The doudon Times is more than Ever Edisonian : It is now a partigon - a Sattelite . so to sheat. I harguined in advance that no Mention chould be made as the Paper of what they had been Explained Why vo. The benefit; will be felt rather than seen

The Edison Telephone Company of London Smital, Mansion House Chambers, Rooms 1993. I in the extro back boundorthe nex 18-Edismian article will have -Gorrand. didn't Eventuon of The continplated Visit . He has not yet shoken to me - & consequence not seen the damps - such is the price of Variety. What is your Opinion of key 1st use of your Lambs? -Nothing new Felephonicaly - The new Contract is rebrahing between your Lawyers & the tempony's Bouverie is still Electionein acceptantin is in Statu qua Jam rendering a him against Bergmann for Coak of repairs Cochhim lita the Bevil - Levanued him when in myork so he can't Complain - My little Interest there - may go to their lefone Ile he taken advantago on IN Your Ever Ex.

Gon! Marriager 76 Market Street. Chicago, med 76 1580 Dhor. a. Edwin Ery. Marolo Back N.J. Dear Set What is the condition of my ninth interest in Europe's How much manay Rase you Stow is the Chaline light brogarding? Expect to dead you a botch of my from the mountains in May, Respoly les. 4. Ress

Haontrechadam cent from Europe yet, READ THE NOTICE AT THE

Newark March 3/ 2/80. Mr J. A. Edison, Olear Sir, enclosed Check for of 1s in moto into occurred secret my hearty thanks for the same. We hope to do mod good into the seed you May the Lord, who has es underfully ludowed jan mits mental kowers, bless ju more Jam Somly Mrs J. a. Reacher.

10 / BANAND Marca SITTON Eury dear to -I sent you flager auramonty the fact that I are fine the correct many must . It was delly on me to much -I get cented, I shall tackle ameting lees my object in writing you is to vay that you once apola of to much of this you we acros for your experimenting that were he good to develope y as one reliable enough and he got had of to develope the - If you have anything of that Raid on hand mois, bear one in mind I will each to you are on my way to new york.

مختلجيناه التجهيد أتتناع فالمحج Marine Mariana deep Parameter San San Carlotte San V. godinas alimente de la companya d may care in a second



THEODORE GUBELMAN Alhologeaphee.

904 HENDERSON STREET.

Jersey City, April 2th 1880

Mr. Thomas a. Edison

Dear Sir

Your reply at hand. Would greatly prefer to make a sitting my self at my gallery as it would be somewhat out of place to send a partrait to a worlds fair which was not my entire work and as I will be the only photographer from This state represented there I would very much like to have your postrait in my exhibit.

In case you should arrange it you may telegraph your coming and I will agree not to delay you over twenty minutes

I would further agree that no other use will be made of the portrait Than designated Yours Respectfully Theofutelman

essen ESTERN UNION TELEGRAPH COMPANY can be y track 2 Pokull THE READ THE

THE NOTICE

арі 6.80 New Haven Con 6 JA Edison Just returned referring to yours Jarrety 5:7th rellius Can make rumber three at once 20 it too late; Better mail sample C. E. Buell 21 NH me to NH New York 6 T. A. Edison Expect to be at ments Park from fine thirty to six thinty

for four new process of working Pailings arrangement with your co in regard to this section of the country - I can Experiments = on, of should be glad of give you any information in regard to this county if wanter have been living - Since I left - Cin insati over Ten years ago when bem and the graphic service soil or last days after down this gray when you with conting of soil of the so

me from Bulman form from the start to 1875-do you link they have The povate proc

T. A. EDISON,

american Machenist 96 Hullon St Ky. Have not received Le Vais

report Prof Sweet has called allention to error in it

MaEdison

Executive Office Union Telegraph Company Edison the duful amount of correspon who have have a long experience in the business, understands it fully and practically and is well prequainted and endorsed with the prominent members of the trade, Especially New England Mostrio where he have been in business. He is now put of active employment and I wilt to enquire if you could not find his services raluable in connection with Polyform, as he could attend to any branch of the business. If not othermic dishored of the New . England orginey muld be carefully managed in I hope you can let him take, hie. hande. the new enterprise and if there

the least possible chance to afford an opening

for him mile let me know of it, for I am cutain he would prove a most valuable man.

Yours sincerely

9.44 Kent

Mylania go althurt agety go

Palland ... H My University of Jenne my deap Edigon: - Enclosed of lund you a letter from Prof. Dana in reply to your letter to me asking, me to order for you the complete Seignee, Please answer it. I have not seen the Ellustrated Eintipe News to which you refet. But I have too much to do to undertake a newspaper controversy. I was comewhat inclined to reply to Popia note, but didn't. mayer & morton's paper was not es bad after all in its effermental part; but its conclusions were abound, morlove paper in the Sanitary Engment ie bad wough. Cordially your Reorge F. Barker.

The American Fournal of Science and Arts,

My dear Port Barken:

(We can formate me

Cairm with the full set

dervice. I so the lot series

the change unbrown in feros

a volume: A for the rest till so.

We have a bound set of

(the first series - gritt humanul

bound in tenting more, I should
as good on new y which will cont

him ally so series solutional

how where. If there like to

have a sample, we would have no

Newark april 21

Mi Carman
O would off
liked to have know if the
papers went all right.
I sent them in Mr Edwar
Mame thinking they would
go guiker & safer & I
have have heard anything
Direce about them
I will send the
More Briggigh also
More Adams

tenet to a land

you the call for the tratay. Hope you will so your feet on back forde times rake. If you firmet it I hope to drop in and

ou you at Meals Park orne time. Im a might onl and will sit of to Len your organ Miss Clarke of the defort has one I gone whof febotos but it was cracked in coming up. Regards to your bities. I'm fat, 40, me h 273 and still vistams as all backlos should be. am fraud of your oncefs and hope I'm will get at the head of the head of the head firen you .. hich best for

BREVOORT HOUSE, New York MM 2 3 12 1850

Please loop was your sous solby N.P. at My. + Mula , Doan. Edison "My 28 ape 28,80 Thoo a Edison Mr Lowry Cannot go Fodoy Porter Loury 8+8 le Collecte

Cash Power of Metter a may 10,1880 dutiale care how mr. augus wibber that newall. In an abut cutenst logether Horn wir. Can Ju Moon= hobits.

Devould most this enquiring in Caref du Grand to Elloudge 36 3,

Ja & Ines that letter at med.
War yarrent it?

Promailed to you my Libert Hymn please let me know, if your received it - michigan p. of ce way trust your adminer To flowing

em as a 6 dison to The Major brought me, with your Complements on his returns from the Each - a Jour of Ation trug Telephones a Thomograph aur a shotograph of yourself undorsed to me by our formal hand in which you were Seeased to expressyour friends hips! I want to express to you my appreciation of your prement acces, and I hust you will consider me effusive, when I say that I forige the hatter gift mort highly and highest treasure to as a somewind when your fame healt have increased a Lundred fold nant, and to have the pleasure of forming your fore and acquaintance, and I would to ack in advance, that you will spend a portion of the time during your orch with me in chorotte

I scudby express a small package conlanning aspecimen of gold and a Ca a loken of my estern They are both the product of Churche The Diamond, al though of lettle, intrin is valuable by pears in of its where has this country and hopeon in book age you will see by the trystitization James Carbon and will find it make Lander than the Cape stones The Darkeys of my tative state has rostet superstition, that are weart goin a talisman against evil of misfortime, and that it - brough to its happy possessor gos buck, and succession all his venturos ? Son Dadvise you to Keepin in to present state and hopeth may realize for you are its mythical good fortune my thread your my respect of mo.

within to: Mr. Uncled Levison JEHL 314 Lingston Leest Brooklyn, Way 27 1800

the book containing the deacreption of Richards pump and am very much oblige for th.

I am sorry to say that I could not come on wednesday on Thursday as I woo to busy.

My intention was to go but me Pedron wanted an experiment function which prevented me from going. I chall however bring some lamps over some other time.

To M. I. Limson Yours That

Olean Long 30
Dear Long Charles for grown
photo. It look like old
times and I shall value
it, highly Hope to see
you some day Inly Know J. I Blampan

Electro-Medical Department, Eastern Supply Depot Dr. T. CLELAND, AGENT. 267-Broadway, New York T. a. Edison, On, Well Pack. Dras Gir: Thou why it leaned now in the Duplicating Juh. When you were in the office a Never the or two ago you sport of sending a man over to make the for us. If you cannot final us the formula, and if not convinuent for you to let four man come over him why not make us up two or thru gallow over at the pack? Office when you are over you'll like it. Has blace got fact yet? Set me hund about the Sul form as T. A. EDISON,

Menio Park, N. J., June 14 1880.

M. Stepenson
Brownst- 26 ourse
Newyork

all right- comeEdison

No. 3 Masonic Hall. New Brunswick, N. J., Jine 19 1850 Than I Elecon wit herour he to Ray, That the Sufcused have for \$30 very as he witereds to appeal, he of much have a prechology To do the appeal Band the the feine dure were be \$ 40 - twee the com of the Reference 900%. A much fee

LAW OFFICES OF J. KEARNY RICE.

her Board Heathin has

T. A. EDISON, Menio Park, N. J., 2222 15 1880. Massonie Hall
Massonie Hall
New Brunswich
p.D.
Lend blank oppeal bond
in Hankus case for signature

Cor. Rush and Amber Streets, Philadelphia, Pa, Jane 18 2 Dear Sir! Kindness and informer us by return mid, when & whene me or me as can here an intersum with Bru in reference of a very important what day and and - Col, It Trishmuth min

Benjamin & Caspary, Ampartas ,0 LONDON, 24 Old Change & C. We have the following inquiry from Gerhie, Prussi: , What is the name of the company . in New York forminous with And has this be agents or reporting May in trouble you with the regard to give us the denical informations in order to report the same to our correspondents? you kind reply will greatly och Edish Telephone Co of Educa Edight Co of Emmy other waentons, Edus on her

EXECUTIVE OFFICE, Western Union Telegraph Company, SUPERINTENDENT'S OFFICE, Ohila. June 245 18 J. a. Edison, Esq., Menlo Park, Do. J Hear Dir: yours of June 16th rec'd. I have been very busy for a few days past, and will be by the next few days, af ter which I will take up the matter referred to in your let ter.

S≫ OFFICE OF ≪S

J. S. SLONAKER.

DEALER IN FRESH AND SALTED MEATS.

Sali Sinden, Mich., 6/29

Thus Pay form orig to gether with the willing to the survey & Dain at the control of the control

Jo J. S. Stonales
The medical is the Rheymatia
but it were relieve
fucial houringia.



2430 Redner Street, Thiladelphia, On July 10, 1880. Thomas a. Edison Esq. Mento Park, W. J. Lear Six : - you wise please In hime enough to excuse the liberty of take in addressing you, but trust a perusal of this note may form sufficient gology. My husband, W. a. Engarde, a foundist known to you in formizears while you were acting as telegraph operator, famel who while connected with New Brunswick, Elizabette, EN. I.) Sur Jork, Boston, Cincinnati and Chicago faper, her made formable and flearant mention of your inventions, and personal interesty has non quested me to address you. Mr. Engande is suffering with acute ahumatism, and his affliction, and consequent non- employment, having . flowed in my defined cinoumstances, - we are without any resources whatere, and have fine little children dependent upon us, ha has thought you might he sufficiently charitably disposed to extend in some elight feemeday aid. The smallest

form will be thankfully accepted, I Your will them for and your for my hindren bestowed, and Mr. Engarde has resumed his fournalistic duties, any form extended will be duly remembed and amply recipion cated . Insting to your farman He and early consideration, of King Tuly, Jours. Mir. Mary b, Engande.

row Professor Vicken cation will opened the evening and 26th there and asker you would take an interest hapiting up that grounds in your efective light of wrote in that of thought three or four lights would do better for outdo ination than your lights it that I would wo him directly if you have augting to say I hope you will be able to go to the Boston meeting, o will not ask you to priser any paper but I would like to have you

take one of those witte magnetos that I saw the other meetings will be held a mass, Just. Technolo could do that owly by the orders Strake greate would wong instruct parton it is ack of misodally yourself to how was of Diorgests Garberton

Dates READ THE NOTIC

WESTERN ELECTRIC MANUFACTURING CO. 62-68 NEW CHURCH STREET. NEW YOR

July 16, 1880

Die:

Mu. Legador har servedy in product to the work the horse to the fire to the control of the hard to the control of the had been out of work for the work in search to the Manage to the work of the the the standard to the castied past the standard to the castied past the standard to the cut of the that is a standard to the character to the standard t

WESTERN ELECTRIC MANUFACTURING CO.

02-65 NEW CHINCH STREET.

NEW YORK.

Thave at his request written this Note to your hilly John & Kelly May a Edison May a Parla, hop T. A. EDISON.

Menio Park, N. J., July 17 1880.

John W. Lawson Bollaw Colmado

Make no datement that you represent me or have any relations with me or I shall stop your fer occoring through the newspapers there

RH Faldron.

Seabright N.J. 22 Edison Ments Park Nothing yet from you regarding Bankers time presses can you send immediately to Maniton Competent Engineer to examine water power and report requirements for immediately Opening Maniton road by Electric system either water or steam - I will provide mwell to day Gowran all expense reply here little

you spring the scheme on me too suddenly regumes to get a man -

Banker is generally at his office days

Collect Caldra

Jet Elison Eger Sear Sir, In sig. of the Come of Seven & and art would Dan Junit in to Phatograph an illustration af Jour Electric Seaconotion works? would be prepared to take larger pictus than those done for the Cophie of your works at the third True frais ayo, and Juanuse you nice specimens for four tenders pe The spectfully Tholmes

il In Seal a priling to send me the mula & let me have an exclusive like to it I mued he willing to take it On my leturn uf sh spenking a fain here it occurred the seem of name in adicting that four toly form and + a lever to no doubt but he introduced with the What a new large demands County with Rucces, a Could be created for it. I Meuralgia is a say Tree. unil I hear all the expense -alent affliction in England the retaining such a where + expecially in Scotland in its profile is we might I dent of a caple arrange hetwist us. acheir I'm what term of I hope all this could acquire the right are forifin will at Mento

Im have a food there wan in him. I can truck him. I have se fands to ken Backelon, Im my truly and the Electric Railway doing its pade of 1. in of. die en hijhlened un Scotel fullie a food deel almt for doings Mullione one down here in some prints Connected will the Seliphone but there are matter in which In individually had no hand I no blame attache to An Iri a letter to day from Johnson. He sail In the arigon 21. aug .

T. A. EDISON,

Menlo Park, N. J., July 26 1880.

Received from I a Edwo on through Wm Garman twelve shared of Edwo on Telephone (60 (1) Europe) stock

Ellen Adams

I work July 28th
110 K Sompeled

Phe Carman

O received From

Mok & the twelve Shares

all right & also if your

stould oblight the by remain,
25 dollars besident Whith

will be a great chielement

to the at this time as ?

am short of Money just

how

Ellen Adams

Oriental Hotel Manhattan Beach L.S. 29 there tiring your wife and daughter answer es HBawa Stave no auso to my Celegram of gesty come wis David daughter to bruntal Hall Daty a mmy so I can see

T. A. EDISON, J 14 Banker Hales Quenta Harris confe will not come & Lunce be down outwiding OFFICE OF

Anreha Lake & Duba Canal Co., Consolidated

Monta Park it!

Hearlin: On my return from a little vacation Found your externed favor of July 21 th, and as unfavorable as the result of your investigation seems to have been, would like anyhow in the interest of the Company which Thave the honor to represent, to ack the favor of calling upon you any day and how which may such your conveniend between this and the 12th instant, in order to ascertain if some opening may not be found which may lead to

ow mitual benefit Soliciting your kind answer of remain Sin Yours Viry Friday

THE WESTERN UNION TELEGRAPH COMPANY.

LICENSE THE WESTERN UNION TELEGRAPH COMPANY.

LICENSE THE WESTERN WAS AND THE WESTERN WA

all right

ÈM O∑R 1880 Edizar or six gal, P, Celand

Western Electric Manufacturing Company, of Chicago P.a. Edison, any, Then Par Dear In: Your favor of the 3 to is at hand and contact protest. I understand fully that Blis uwn paid you for the ich he had of you, but that is not the point, I don't can for Blis or the weeten Electio in the matter. I want to know what you will make two - five or ton gallons for and put it in jugo so I can bottle and lasel it unself. I want Some of this ich in order to supply my custimes as I citur want you to make it or let on make it, that are It has nothing to do with Bliss or the westen Electric. Please favor une with our answer au = midiately and odlige Your Heland Januil Jone? in make it for me how some can you

Editor Scribning 7, 1880 "World's work" Deputment, Will you be kind mough to in form one of a good can, when she were metal sprient in your deput munt as species mitas in July, us. cun be obtained? By doing er you will confar Husen Mil

Novelty Rubber Company,

New Brunswick, N. J.

Dr. J. A. Elison s for our on new eimilar to the ones of Bristo Frew from the factory up to my house. an towned at m. finisher house - phovided the three telephones from you. On blu one at Mr His house and one at my. don't feel like lieding in three them forgoth one at mr As house I have also some nako to buy one bar R a cion almh youd flut cout by less than a car load I which In reperiment I made stond you are received from can specie out for the will you to you are received you made species of your mills please out of the soft of the stone of your mills please is the stone of the soft of the s net or would like thave Motousi send the loiler maker who made some monghe chim or your as man non is reed of some of flauge of are a timble to make . He gave my though the addres but he has last it. Asping that in ten or good nature to much Inm on Very tespecher

The American Fournal of Science and Arts,

IAMES D. & E. S. DANA, PROPRIETORS.

New Haven, Ct. Aug. 11th 1889

les and somy to hear of the deficiency in the 1st Levis -On agent to Lacked the values was directed to \$ mor the At I see that all the volumes and them, to Endustry faits to do his duty. It was do not keen the volume to more we will and you mother copy unbound which your binder earl lavily make miform with the not - we will make poor the difference in est of builing. Righting the timber you have had -

Goat lo being ordered and it certain looks as though their in it chan as yet got any went from mutym pleaseles me knight by return mai What you think of it, Scientife and practically do a business undertaking 2 I propose be guided by your opin How is the motor setting

yet? In went the provise you me about the broton Sective his with Futilizer and are the Externa borning thing are begin were of alternaile of wice Stock and carry it o for manifold favor. Jovey Edwird M. Try

till Saturday have written you why written you why whater when why READ THE NOTICE AT THE TOP.

M-Park aug 17, 8500 Allwight Come any time & Present this Card at the Office here— Edison



Nevelty Bubber Company,

Sew Brinswich, A. f.

Salesroom, 43 Lispenard Street, New York.

Elism chuz 19 1810

ago & chegus the fact about lelephone accordingly . The 16 lh sail not lie to light of fich and have

secued a Soll rail from the Part of full and have

Since refer the Silver Silver

my dear Edison: -I examined the facilthes for power at the mass. Inst. Technology, the other day when I was in Boston. They have a dean enque there which will be rinning and from which you can have any power up to ten horse. Will you not therefore make arrangemento to come on to the medmg and bring that small mashine of yours and rim a dogen of 20 lamps with w? The large hale of the Institute where the meetings are held

is directly above the engine room two etories. To that there will be a fine chance to run wires upe & light up that hale. Professor Ordway wondered if you could not bring on two machines so as to show transmission of power by electricity. I will not ask good to read any papers this times but I amoquite anxious to have you come to this meeting because Itimk you will have a good time of your presence will help the meeting). Moreover, Backetor & Upton will then come too'd quest. as I have heard notting from Briffin I infer there is no electric light block to be had. Cordially yours Deorge J. Barker.

J. C. REIFF, No. 52 BROADWAY New York, Aug 20 My dear Edism ectivity Re why every palent

T. A. EDISON

Menlo Park, N. J., 1880.

) a Echann Shaw go home the approver of or will our you Sey S. B. Ecton

346 Bdmy

& Nava received no aus, to telegram consequently

SB Eaton

18 paid Ke 125 pm

I hund teto upin yet s When the One wice he trick - like hunds you word in time of Man word in time of Man go 180-

Meulo Park Steel plate portiail of be willing to have it Potrait gallery " with biographical sketch -It would be no expuse to you . If the steel place could not be spend for the hurpose, a duplicate electrolyte could be made at a smallexpense; Hoping to hear obly from Jan 1 6. Butter

SUPPLEMENT.

PART 55. Supplement No. 15. PRICE 25 CENTS

MERICAN Portrait

With Biographical Sketches.

LILLIAN C. BUTTRE.

New-York:

J. C. BUTTRE, PUBLISHER.

COPYRIGHT WORK ... SOLD ONLY TO SUBSCIENCE

k at showing signs I want to stay come be no down the There Ja Hanya L him of metal tested yet for conductions DEpt 9, 80

6. Lombard Street hoo a Paison Ro Sobento Park New Jersey Mb y Dear Saison Vasium Freserving. after opening the fruit deaveryow as follows: "Respectly preverved little water 4 from all tastes elighty alsoholic aflavour as if fermentes . Ly weighting my expense " which leaves but little to add except that the result of the experiment cofar apparently conclusively about there comething in ch. what explains the formentation well know letter than I I am party anxious that you should then Come fish and meat say comes grouse fraire Checken some with the feathers on and others with

I want this thing follower up and are game to spend \$1000. Let Comebon at it without delay. This I chould thenk cauco we done without unterference with the greater out going on al least enough has been accomplished to crow the desirability of patenting the process which indeed I think you las already deseals to do be foul aft I have kept one peach marked the 9 th august which the about four drope of water in our woodon which which is away to the craking about it has beerind and in conrequesse of its acres rather loose in the gears. This has been the care with ace the fruit which produces explains the water by packing come in Cotton natting I have been in shore too with tuno to learn anything of sufficient enterest to report encepe rate Alivania has apparently been unader to arent mathew to a conclusion till or return cles 1 the difficulty of getting a granding

Gold & Stock/Telegraph/Company/, . Western Union Building, New York, Sept 11th 1880 Friend Edison. Miss Mini Parriers of Cologue Germany, doughter of Professor Farius, is desirent of obtaining your autograph to place in a collection of celebraties which she has made If you with Kindly write it, a a note signed by you, I will forward it to her and thereby confer a forer which she will greatly appreciate. Chur very tenty Gesto Prescutto when it alloy but I show

T. A. EDISON,

Menlo Park, N. J., Sept 13 1880.

Myw William

5/9 7th at

1 519 7th st

Writing will meet Cal bottly on Wednesday Dalog.

Nys Sept 13.80

Will go to Mento Tomorrow
To see you
Si3 Enton

8 pour l'ég

Muso very uncertain sion

this west oure few Goodgean

of the future " Shine apace long march for you to give a few oninetes thought to "albemarle" Four opinion as a dountist will guido me to the 52 lent of Thinsan of doceans thavent as award from Dr Moses, Chemist who promised his spare miment to give me his acialysis of the for tilizer. The Co has recently become very

shing and an Closer. Jan is define like that cake and the famero as horticulturales setting ared NEXT Week au I direction and probabl put up the price & Treasury stock to tu present figures pulvant to make a fe you and guarantee you against loss. viry inside, Riedseletme

Dear I'm Jhave I Enclose abel lathe box of un clectric Pen - now Lave the please two wa in The 102wa

Hotnard Wortley

HE TO LEAN UNION ILLEURAPH UNION ALLEURAPH UNINFARI.

Long the street of the street of

Moston Stat 15, 188 Boston Left 15-1110 mind Edward Sen hi-Bustin Celebrates ets 250 amoune Tracing of the wek = I am festion mile from Boston-Below formely of it forms Immo, Below Lewing machining manufaction - The morning as Irus cuting my huleful he Came to my title and maked me to come his mutition to for which I Incluse - his farm has Cust a million dollars

will think him any by his letter but he is morning healthy and Seems frime for whole Bost his place I hope for into owne and Hay a few days bring from Afra Conclude to Com teleproph me emild wei he it she defet to must fon. I have but a minute to unte lufore Litzing my trans to seems benty and hester The Governor of the lite of mus and many Chijinatans on to be is it from for one Enjoy it also me Edmin Respectfully In

T. A. EDISON.

Menlo Park, N. J., Sept. 15 1880.

Col Stuart Worthey

Earles Hatel

any time will talk over the

Colison

Carles Arac Seffig Mydear Siz

Laster portant wy tetter

in Tram Jomorns the Ithis

Veryfaithen digg

Earle's House elydear sir.

Menlo Park, N. J.

S. Bergmann Esq 106 Wooder St. New York.

Oblige me by letting bolonel Stuart Wortley have two motographie telephones of the finest pattern and

style of ornementation

PS . He desires them for exhibition at albe South Mensington Museum London

that Wortley la miliante; hi othe dand demon Earles Hole Supple Many thank for put letter with non a letter of introduction by the Muslem of the Muslem of the present light please soul its present light please soul its present light please soul its gettern off out minus track of the present light please soul its gettern of the present less the present light please soul its gettern of the present less than an early the present the p

grif and thus Treend Agatt

J.W. HVATT.

177 COMMERCE ST.

NEWARK.N.J.

With verey Jorny but The con a cont of the woods of aint many the the Calledines in and the called in its ricreation, Ludday or Wednesday next We enguined the Cyclops a first class ocean trig. The purpose & will probably go up the Hudson or the Lound, We shall number with our friends, grow 50 to 100. and we about be pan licularly glad to have you go with us "all work & noplay or" Please favor me with a reply Will let you know him and place of elasting from servants,

Hancock and English.

New Jersey Democratic State Central Committee.

Chank the Street Comment of Server Se

1.1, 52, 26 25 9 80 Our atthe offin has been unauged for Herman lay The 29th inch ria the 7.36 Well train from Broad St-+ boat "Robt Robinson" at Jerry slife Jusey Cily which is charlined to take us to the "Cold spring House", Cold spring Harbor L. S. where dinner to will be lagirly awaiting us - Should the wearter expear too three teams woole will be taken at the Broad St Station before Stirting You are at likely to bring a frient along Orlando Greacue & Committee, To Port J. A Edison UNB Edson Mulo Back Please State by portal your acception. that we may to ... number , ring _ and also state time of your arrival in Jusey City + Str will call for you at the Penna RR, Slip to street 8 + 8:30 auc your Thely say

proof Back VILL Ta. Edusion Meulo Fork M. 7 Buicha St. N. V. Deac Enclosed please find first finder · It int makers two pages - although a line or two might be added of needed out any - it marked quatter to the a extent could be substituted .- I however It is right _ telegraph to that effects and it may save me ado, (Oct. 2 180) Theo Ruskas Ruskas Wasau St 2 Nassau St pton gone away LRE

T. A. EDISON.

Menlo Park, N. J., Oer 6 1880.

Il Graffin Of Brevil Morgan Co 23 Trace Sr My Oleans brung Bank Book.

Tribuneoffice, n.y., Och/2 They Dear Sdison :-Very sony for dis not Come to cheat ening, pe on all had a first arte time. When: em you can see an en ahead, at me turn, a 21 Thall be most glas A Das yendeato, - or retain them for you at the base officer I feel ander very great asligations to Just & see you face & my audindo. El. Johnson Bays yo have grow chestunting at them . If The can have a fair sher al that sort of fame me would like exceedings to me at

Suchen o beech, - provide

First there is a convenient trade

both trap and godly day.

Will by plane and for tun

and a fifting to drop him

a note of advice a the voljed

of abstructs

fray as Son

To a conference

To a conference

To a conference

The conference

The

2. newyork Oct 13 Ma. Elizan Park M. Edison is at home & It is entirely Convenient My Lowery VI wie go as this leftermoon + shead the night auswer Il Lowney of Planer Park 71 (Ce Supol Brillians VI 100 Myork. entiraly Couverican be glad to leayon Edino

My 13

Thos a Eason

Delf and wife will be at your place between 12+1

Pom Magnire

12 Pana Kily

EXECUTIVE OFFICES

→*/HLBEMARLE FERTILIZER COMPANY,*< SE CHDAR STREET. New York. Oct 14 188 My dear Evison; I want lose you about a matter of Onsinees wanted with This Co. involving an immence fortune that can be obtained by you and one jointly, I would & to Mento about it but the true State of affairs can only be Quen here. Write you Therefore Come to Newyork an Jahraday? Iknowym aversion to Coming to town but this is matter of great moment as you will quelly see when you leave the facto and I assure you you will not regret it. I have

why just returned from our property and it is the Universed of received up there, (Known my lowyself) West courses me Bo seek this conference. This is a freater they than the "light." and I repeat you will not Regret coming here. After our business talk Jaguable, I amed like you borne with me at my new house and then go to the Theatre with me to see Conderells or whatever play you like. Please and, my dear Erran drish let you work attenfere, his Come. Telegraph me in receipt of this, as I want to alegraph form premulendent at the property (350 miles from here) to Come down, so was he may meet as

the necessary data. This is an opportunity that occurs once in a life time Alone Fam Entarth your aid, we ca Teease Therefore Come and alignaphene on receipt of this the time

Patent Office Museum,
South Kensington,
London, S.W.
Oct. 16, 1880.

Dear Mr. Lack.

I have the honor to report to you my return from my sea voyage.

I beg you will thank the Master of the Holls, and accept my thanks yourself for the favour accorded me, and which has in the Doctor's opinion resulted in much benefit to my health.

You will remember that I wrote to you from Sydney telling you it was my wish if possible to return by way of the United States as I felt it to be my duty if possible to visit Washington, and obtain as much information as possible both as to the Patent Museum there as well as with regard to the general working of the United States Patent Laws.

I was received there with great courtesy by the Commissioner of Patents, and was allowed to visit and sit in each of the Examiner's rooms in turn and by watching the mode of examination &c.&c. to make myself thoroughly acquainted with the working of the Patent Laws. Should you wish it, I will make you a special report of my views on the American Patent Laws.

I deemed it also my duty while in America to try and obtain some models of value, and such as would tend to increase the importance of the collection belonging to the Commissioners of Patents. To this end I spent two aftermoons with Mr. Edison the eminent electrician and am glad to report his presentation of some very valuable <u>original</u> models of his various inventions.



I forward herewith a list of the various models of interest I was able to obtain for the Museum during my visit to the United States.

I may mention also that while at San Francisco I visited the Mechanical Institute to which I was aware you had sent a complete set of specifications &c. in order to see if they were accessible to the public and freely used.

They are very easily accessible, are taken great care of, and are very much used - all which I saw by going in as a stranger before mentioning my name.

I shall hope the Master of the Rolls will visit the Museum soon and see these new acquisitions, those given by Mr. Edison being of great interest.

I am, dear Mr. Lack,

Very faithfully yours,

H.STUART WORTLEY.

June Char. 14 sur.

List of Exhibits brought by Col. Wortley from the United
States in 1880.

Oct.19, 1880.

List of Models &c. brought from the United States by Colonel Stuart Wortley, and of some that are being prepared and are to follow:-

Original Electric Pen invented by Edison

Original Phonograph " " "

Original Telephone " " "

Original Tasimeter "

Improved " " " and
used by him at the Transit of Venus.

Original constant printing Telegraph Instrument by Edison.
Original Electric Lamp, of the kind which is to be the
Electric Light of the future.

Patent Lantern constructed to burn in the open air and used by the U.S. Light House board to light the shores of the navigable rivers.

Patent Bell Buoy to ring a bell with the very slightest motion of the waves, adopted on Coasts by the United States Government.

Sectional models of the well known Patent Magazine Rifles for joining 16 or more shots without reloading -

The Winchester The Hodgkiss The Remington.

One of the latest improved Patent Type writing machines.

Two Patent Revolving Bookstands. (These are of full size and will be used in our Library).

_Patent

4.6.

Patent small letter weighing machine - as used in the United States Post offices.

The Eagle Automatic Pencil.

Patent book for holding newspapers &c:

The above are all patented here as well as America -Besides the above which I collected and brought with me, others are to follow which I will duly report on when they arrive.

(Sgd.) H.STUART WORTLEY.

14.6

VALUABLE MODELS. PLEASE HANDLE CAREFULLY.

On Her Majesty's Service.

Colonel STUART WORTLEY,

THE PATENT MUSEUM,

South Kensington,

LONDON.

Form No. 18 B.)

THE DIRECT U.S. CABLE CO., Limited.

In connection with the Atlantic & Pacific and Franklin Telegraph Companies in the United States, and the Dominion Telegraph Company in Canada.

16 BROAD STREET, NEW YORK, 18th Ucl 1880

REGISTRATION OF CABLE ADDRESSES.

To Thomas Alva Edison Egg

DEAR SIR:

We beg to inform you that you will receive Telegrams by this Company's Cable from

Sourand Eag. London

"Moside" Menlopark and in cabling to this firm please address from telegrams to

As the above Reversible Register identifies the

As the above Reversible Register identifies the sender, the signature becomes superfluous, and the cost of the address is reduced to the rate of two words.

Very respectfully, G Wardy
Superintendent kayn

MACK 2050 Emfor

EXECUTIVE OFFICE

 \rightarrow #Ньвемя
кње Рек
чинитек Сомрану,*
*

ALBERT SPECTRET PLANS.

ALBERT SPECTRET PLANS.

EIGHEN S. 1. POS. SEGERAN.

PLANS S. J. ALBERT TANA.

ON CASE YORK.

ON CASE YORK.

blear Mr. Errion

a letter five days ago

some argent business of

mutual interest but have received no reply.

bidyon pecure the letter ? Since writing I

have made arrangements for party the undertaking to

which I referred but it amed the he g much importance

for me to see you in New York. Doyn soprech to be here.

within a sew days? Ifnox

and arie try and golo Meulo Couri de Fr Tardrom En mener Park n.J.

he writes me to know what be can count upon, so that I hiladelphia Oct. 29 in case you can do notting for him, he can provide lome my dear Edison: other novelly, of you can give You may remember him the lamps, I hope you that when I was in hunlo will go over beforehand and Park the last of July, & spoke to you about purnishing enough be the room and suggest the best plan for lighting it. He of your lamps to Dr. Draper to has there a 4 HR gas engme, a bramme machine and a West. enable from to light up his new laboratory, on the occasion on machine. He is coming over of a reception which be gives here tomorrow to spend the Imto the National academy of day with me, to see how my, Tources, in new York on the new I HP gas engine runs my 14th of November, & understood gramme machine. I lease titeyou to day that you would graph me some time tomorrow have a plenty of lampe by What you can do for him. By the way, why can't you that time and that you Come over tomorrow (Saturday,) would fix him up in good Chape. Us the time of the afternoon and spend Eunday, meeting is now approaching with us. you would be interested

to dee what my brange neareally a remarkable thing. I "clime would do . Then I have am now making one of his cea levoy Crooker tubes which levening celle and if it works I am going to chow, which are well, I intend to cliow it at Dr. very June. Then too Sawyer is Irapere on the 17th, hm. Bell talk. running his lights down town ed to me in Boston across the lightings up the mircantite de - Equare on a beam of comlight; brary building. This I know and the articulation was very you would like to see. The good. We cannot see now that Thomson-Houston dynamo-mait can have as eftended applidune is ormning near here; cations as the telephone; but that and they say that that is the is a matter for the future, best machine yet; of course al-What progress are you making, ways escepting your own, Come at mento " I espected that you and spend the Lunday questy would make that grand demonat my house and we three will stration before this time. Have have a good time comehow; of you received yet they high speed you can bring, mre Edison along, ingine from here I bee you so much the better how Barker are forning companies in Ciewill be very glad to see her. rope, so & suppose things are yet I have been efperimenting with marching on. Braham Belle photophone. Wie Wours truly George J. Barker.

Show Frager Learning town Oct 31,1871. To I a Colison Ery I begto weknow leolge He was to De Birminghown Literary The or the columnia it is

aheusy futur /40 blige yo

THE WESTERN UNION TELEGRAPH COMPA

TO THE WESTERN UNION TELEGRAPH COMPA

THE WESTERN UNION TELEGRAPH COMPA

THE WESTERN UNION TELEGRAPH COMPA

THE WESTERN US AND THE WESTERN US AND THE WESTERN US AND THE WESTERN

THE WESTERN US AND THE WESTE

a.R. Burbank Lotto Club.

3909 Locust It Phila. Nov. 9, 1880 found your letegram here on my return from her Voth Sunday miglet. Pam corry you refuse to allow Draper a few of your lamps to chow at his reception. He is a good fellow and & feel hurt mythis way to far as he is concerried, the reception will not euffer. He has leveral other things to show which will be very interesting. and as to lamps, he has been offered lone of maximo, which being of low resistance (30 ohme) will be easily our by the engine. Tryly yours

Brisklyn How 16/81 a prostion as blass in your new Company: & really need a setwartand shall not differ o now but respectable.

for me and manifest bed I shall Joans

J. A. Edison Eng Working high of the regular subjects of the Court of one of your roll exteem it a great form if you will exceed to He here some waing and to take put by ofering the discussion. If The come do or will you designale a which I can Le it in the next issue of the programme One oblige O.S. I would about you drow he doe 16 the Knight has just that me be will have to be seen the said have

Em Sal de 1

EXECUTIVE OFFICES

>#/Hibemarke Herfilizer Company,**<

ERT SPEVERS, PULS TO.
VIN M. FOX, SURMYANV.
NOIS W. JACOBS, TOMAS.

ON CON W. JACOBS, TOMAS.

Dear Edison Davocegon a

week ago in reference to the five shares of one milling an which I paid you \$200 but have received no regoly. I know you are so treatly accupied with things the trionice in re the sivine Revahards and male matters go univolved but maney is awgue precious to me pied show. I started out to raise \$20000 by the 7th of bleccuber and I am without speaking orstance of that hand some from the foliant some foliant some from the foliant some foliant some from the foliant some from the foliant some from the foliant some foliant

Jouan that is raisable, La making Herenlean efforts to raise for unless the whole amount. is forthcoming on the afford day, I love an option that means a fortune. If therefore you and let me have the 200 # it would be not an inconsiderable help. As for the 5 thanks of Ohr. Iwile take it or not pret anym desire by thee 1st flamary as then & Thate are in large fundo allemance is booming Thousands of lous weben fold lind the stock is Expirely increasing in value Please let me bear from you by return many Just They Son day

THE WESTERN WINON TELEGRAPH COMPANY.

The Western and my company of the company o

THER WESTERN UNION TELEGRAPH COMPANY. THE WESTERN UNION TELEGRAPH COMPANY. THE WESTERN UNION TELEGRAPH COMPANY. THE WESTERN WAS AND THE WESTERN WA

WHanter Co Ham Monroe

- I due me which is \$ 3.32, ras I have been marking large purch sees and come in need of fundes. I ferry additioned of I from furchased large additioned of Low. Filipies and his absorptions is I believe, the best Entomotogical Library in the United Starton With this remarks

I am aware that your characteristic modesty will not permit you to speak of and for younel, in tack I could see no occasion for if you did, for your works speak officiently four for you wishouts that, but will you allow me to beg a small Jam of you newshelf? ! showing the thonograph, I found What the most interesting part of my entertainments were the short biggrapolical shetcher of the inventor. The material nos rother meagre tis true but acceptable still

now I find in this my new on a rubjech which interests the " me ("The dunny dowsh",) that whole circlized world Chr Edison is hardly as well May I count upon your kind known as he was in France for your triumpth in received, and Germany while Strawlad There and as I am atout Inspeping a lecture on Edward x his inventions, I knowne upon the vanture to ork you whether you could not without occonficing your time or conse OKB. I see by the propers that nience, points me to some printed you propose by an actualition sketch of your left from which of your perfected light own, to cull some reliable detain Wish I could from another the subjects everien, at mento as happy as Of you will so for four me, the one I speak there on Seen 31 lest. you may not arrived of my most lesting grotetude and will at the owne time contri-Addrefs J. J. Sprengen Rome Ga bute in a great measure, to the information of the people of This rection of our tenien

Star Pa. Styren my testumony in relation tare bring, so any other, his or far as front sound other, his or far as I might should be the form the styren to the far and the styren to the far and the styren to the s

Auffalo evy Dec 11th My dear Bropessor -Dare I make an appeal to you for assistance; or is There a spot in your memory Sufficiently green to call up any recollection of the subscriber If all Thear is true you have reached the top of the ladder financially as well lask of you my Quandam as dientifically, While I. friend, is to read this thro the least dignificant of the patiently & favor me with a reply and if you will Exeter place Chaincey of lend me once more a Soston tris, am still working Kelping Land Swill try by lifteen hours aday trying Guture actions to show you to pay debts contracted That I have dome appreciation When I squandered and of Kindnesses Shown me have been working here in Suffalo for the past four years and devoting about One third of my incom The payment of old debts. Thave in the meantine, with my usual good management run bekend

There and now when

have probably the only Opportunity Dever well have to better myself Deant get away from here because of this being behind -Thave an opportunity to go to washington at a salary of over 1100 permonth Andneed 1/00 - to make the Change In the past four years & Will you repeat the Kindney My wife has had pleurisy. you did me ten years ago Apreumonia Every winter with probably a better Owould like to go to Washn prospect of repayment, and loan me \$100. for as a matter of health as well as wealth, but Cant five ordix months. make the move for Causes Keclimate here has Mentioned above worn so pounds off of me Will you kelp me dom? If yes drop me a line, If no, put this letter in the fire Young nothing about it Iwould like to go in two weeks xif you will do anything for me will go the your place & explain what my prospects

Reposition Deanget in Washington is one to be Nasungion is one so ve Vacated by Charlie Cottrace On the Cinemnati Gayette Mivate wire - Senclose Roto Letter which please return John Eclarke Mil Tel Co.

miec. gr. dut by Four thirty train. Camaya for mis Lowrey at Station Will have larriage Celley

When Peo Des 15 180

UNIVERSITY CLUB.
STO FITH NEWE

14 December
1880.

Dear Invitation.

Again in this Host of the
No last 3 months in
Newthing from part of
Marking from Again hours
in 1875. I purpose
12 har hours
12 har hours
14 December
1575. I purpose
12 har hours
15 hours

Sofon Jailing for When I was last Continent. Would it be Thursday? ray - + Been y your W. Frasir Ral

Portor, Lowrey, Soven & Stone. . Attermys & Counsellers ,at Law. . Si 3 Broad St. New York. De o 18 2 P. O. Box 1836 as possible the original rengen reposition of the Edison ore milling my and of the Edison Iclephone any of Europe bry tul Rancoreph Hurry

Portor, Lowrey, Goren & Stene. . Attorneys & Counsellors at Law: No. 3 Broad St. New York. Leve 15. 180. San my. I mot wearly a week don want. Sent them

Mockerville, Dakota Servitory Dec 20 "180 one day with you and had the pleasure of riding on your Railroad, I wite this to find out what You have done and whether you have made the trial you spoke of for the Tenn butal Co. so will you let one know what your motor will do in the way of hausing freight, also if you have any apparatus or machine for dry flacer ground I have plenty of ground that pays 30 cts to the yard but as water many than Ho miles " You spotte of making a machine for this purpose, = Haso you dow so We have thousands of acros of good paying ground but no water, I hope I am not asking too much for ceply, south high regards to My Laughtin Samain dear Sir Rioterville Very Refuelfully Chas abidles

George Grand Street Str

of A. Rosson Rog, brendo Park New Jersey asa.

Dearloson Megaphone

Pray, Pray, Pray, have this shipped without delay as Kindy offered and add to the many obligations, In yours Junearly

Mouran

Wage I Land

READ THE NOTICE AT THE TOP.

Porter Lourey Soren & Stone . Attorneys & Coupsellors, at Lieux P. O. Box 1836. My dear Edison I wish you his year or", + great mereose no yoke to Fablic + me do sull be worded Twombly wished is He Units if him on Saskor come a wife at the Nictoria Asta

27 AL LIE Qu. Tell Mrs Eding I have gone hade on my a true to her I have someth a Hotel - Mus it was necessary to be in love I deone, mode got an other flace now Tariff to Mexico Friduck Beardsfee City mexico How is Laura gettin

V.F,BUTLER,

Thomas & Sdison, nento -My Meur Edison, Isund open some gas Norments by mail, also enclosed some notes from the similaries of with longanies which Shope may interest you, The earthquak as you may percun has spared me, no doubt with the object of sunting Jon; - The Herels heirent is the quintist humber + leaggestion Ju Cur magin, in Habana we experienced Three or prin Shocks but sleight, however in Vuilta Abajo the Shocks were suppresently thon, to Sheke down some houses, Padre Vines our Great Natural Philosopher here truces it to Jublana Connecim heteren Cuba + Central Anienca -I mek a very interesting person who made an eccusion in your favorite W Columbia up the "Atreto" remained Sean months, at Embeldo & horita, Kreitunia with Horos of Gold & Plating he calculates his plating at about \$20, per la he was 45 days going up the river & 6 days return, he describes the Country as the worst in the

world Chinate himble ranson tonuts long day from Malaria .. I the dince jungle full of com Wild heart romake that is every to man the Compy one back swamps so that it is really a Land withint any land - Population Nigras x Indians. no Whites - nins fall of gold, which the natives only look for when they regime to purchase for die there is no ford produced or domestic animals, the animals at Novila here one doubley & fine fouls The fouls wine habied at one owner gold lackers the dankey was puchased at 35 onices Vasted my faint Who is an officer in the dring & and se recolutionist to write mi a skelet of his hip if he does so Johns Sind for a lopy ... Shife your dear baby The hight Somewil is getting on well let me Hum when Jon get time Regards to Batcheles & Lihere and Jamishingship 1 1 Jantos 11. 10. 10 norday from a to

TOO SEVEN CONTRACTOR OF THE PROPERTY OF THE PR & backer 25 11 2

MeuloRark READ THE NOTICE AT THE TOP.

Phila 30 The Frank the meuls on Guday about trale odlots The prox wants the lights and railway orry I Dainest Com Ra

1 newyork 27 I a Edison effected me Copy of Contract with foreign Countries which I wanted & be Newillard 20 nassauch. gesterday 18 baid dr. 2 new york 27. Ta Ediaon Mis Can be made trrenty aix ofcet of his wicher Diameter rover The George Place 13 Colleck augh Macky Eleable to Thomas neuto hart Stop Instruents until clock work ainies much abblish houdle 10 Loudon H Ollaws Out 27 Nample is in a Powder Keg forwarded from Montreal " & Dural quaid on

1880. Edison, T.A. - Accounts (D-80-005) [not filmed]

This folder contains trial balances and other draft account sheets that were used in entering information into journals and ledgers (see Accounts Series).

1880. Edison, T.A. - Advice (D-80-006)

This folder contains unsolicited correspondence suggesting improvements in Edison's Inventions, asking him for advice on technical matters, or requesting his assistance in improving or promoting an invention.

Approximately 10 percent of the documents have been filmed. Most of the documents selected for filming received a significant response by Edison.

ich faterty were obtained this of in the mouth of Septem 1879 last They (the airpring) are provided with a lute attached to the barrel of the pump they lengthen the barred really) within the extension, is a firing upon the end of which is a class for holding flug - as soon as the air is expanded four resel, the spring is touched and the plug driven into the opining of the refulfi Hoccurred to me, that as thousand, thillions of globes, for your Electric Light would shortly be required jahed as this process is every simple of almost as "opposition traped as butting in the stopper by hand I evoiled name it to you, as it must facilitate four operations, ruly conside corally as nell as cheepen the mode of this department, of this pay interesting work which you have just given to the world.

If this is of interest, please disposer a line or you can see the operation ofil Very Respy

Hotel Windson January 8 d 1880 homas Edson Esgr inventor in a small way and not being troubled with envy or jealousy, allow me your successes, which I do most heartity. Some time ago I tried some experiments in the way of seperating The gasses I which water is Composed for the purpose of ob-Taining a gas in a cheap way for heating purposes . I suc-ceeded admirably, but have not made it public, because, to introduce such an invention requires Consider celle money to fight those who

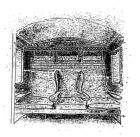
are always ready to pirate not trying to sell anythin or steal & poor shows invento you, Tonly want to know tion if it-happens to be valuable what I have to contend with My Street in Saying all this and if you will kindly is to ask you, Can you proanswer me by return mail duce heat by your inventions you will gratify one very ly making use of electricity much. yours truly in a very cheap manner? 1 A. G. Barrey. It is of little use for me to tre to introcluce my invention is you can heatly electricity In the present state of Dery cheap. By my process Derener we cannot heat houses economically square for one cent pr day by Elideraly over the cost of the water, which, in cities will cost a trifle in the country nothing. I cannot use it for lighting purposes, but for cooking

and heating purposes it is simply perfect. I have no askes, dust or odor. I am

Santa Paula Ventura a Gala Juny 5 # 1888 16 r. O. Of Eduan Mento Park O. S. Dear Sin any Tools that I we for Reforming & mathing watches how becale Magneting and I wish to rection them, as will lose them); Cleans inform me how to restore the dools to their former condition, and how to proceed to make a delicate tut so as to tell when the magnetism is all removed. My tools if healed to a sed heat are spotled to you see the receiving of not healing them Vary Respectfully afull de unlanof 9 how to do it appeared in Wentina 63 the Scent fre am California Supplement 20 3 weeks wyo

Soudon rich 1 18 to Allens Jansen Hherry Learli Conversation I would be glas of your wer por enough to comme the could appeal a practical enermy of stated in back of the The result deservois the lighting up of the under part of the Rahray rock which Contain as withsement Time Inf farm Caspin solony as the under part of In rack is lit up the light any Al he any when either along park of whit is the avalament or introde + either end

Jondon Janyo, 80 Portuguesen and Jany 13





Old attantaine Septelling The fiber Sepuel tool The Jiber I sepuel to - I have 9 Throw and witch think will answer gon Payose, and in your will try sail some a Sangle and will be my min

m -Jan 30/80 lased to here Frame 41/2 20, 8th St. Ph 12,1880 Write 40 ay memel think our

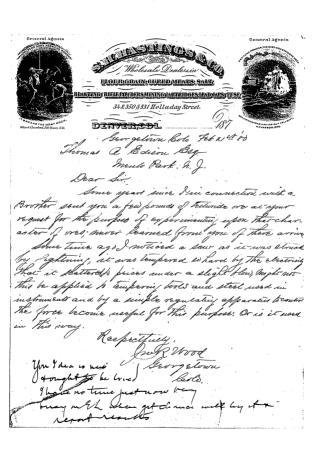
chr Edison his ilia,

Levar Si

I have watched inthe great in. tenst the progress and results of your experiment with the Elistric Light, because if you enceed so I am sure you will - an apportunity will be given to cities to ventitate their sever jipes with down draft ventilation, which I have been advocating the last four years. The practical difficulty, in introducing this system frontiletion and burning up or disinfoling the sever gas in severs, has been the expense of longines boilers . tall chimneys and other necessary appurtenances for the proper disposition of this gas. These must be stationed as you purpose, in various parts of the city to accomplish the effectually The exhaustion of forlar formseners over limber areas. Your expline of manufacturing and distributing the slacture Light solves the problem in the most practical may, I see no objection to using your bigines shoiler chimney ste.

to pump out this seems gas as fact as evolved and cause it to enter in the draft of the channey ander the grater of the bales . I find, believe that by foring the forlain to descend the pipe instead of ascending the same hours drawings will be relieved of the questist sanitary evil in the aly. Simily mand thank gother agatem of sentitulation in commenter with that of the chatre dight, of you could harmony its two that is give cheep light and punair en our devellings you would be touty the quaters bung alo of the present you. The log of mental and animal night. owing to diescape of surveyor with houses and street decrease immensely the productive labor and power of the people. Surote in 1874 to Wallace yle ausmia Com. abentitiers statue light whether stand be used to dirainf of second . They appear that they and not subdinde their light advantagemely . My objection to find out whether this direct policie could be a complete he by means of electrical wives extending though the while dystem of auronage and glainglight buring at will or continuing with the pipes or wells come and with them at internal sother it surgers into ascent word he forced his fan through a bank or bettery of plane. Porhaps you can do this with your light I amoun

entered on a small way, I have devoted my entered time and means since 18th enthus adapted sections and there of second and there as proportion and derive following second and there as proportion and derive for the as jugar have found the many result what if make known fulling by would add to the desermed fapularity of your blacks by would add to the desermed fapularity of your blacks by the advantage matter and lang aprinciple in sometimes matter and apprinciple and second section of the advantage of the advantage of the advantage of the advantage of the second and the flower to the second and the form to the advantage of the second of t



Those A Edison Lack summer I make a levelate Dynamo Chatip machino, Which worked very well but not knowing much about electrical scenes at the time, I much it too small to produce much of a light But Dring successful in it I recolored to make a larger machino, and your) reputation for a successful Chetritian is world wiew, I thought I would copy apar you, I saw in the Scientific American illustrated electription of your lotest machine and as it looked very simple and had your name to Dack it. I concluded to take the likery of making my large muchin after your pottern as described - Right have let me say that I have made the machine for my own amusument and do not expect to sell or him it. nor do I appeared to interpere in any way with your rights or interests - luce I would my meating which consisted of I wrought work over 5 in Diane, and 26 in long one cast cross price 4 x v in long to connect top of magnets and 2 cast iron poles with a how tim in oliver for the armetime to revolve in and 50 th no 12 win to make the Believes, my an made as describe in Security is

I wraped it with no 18 wine (copper) the hight being bing only from commutator around armotum, buck to commutator and them polalised, It wine was laid en true and consisted of 15 strands of ely winds Each From this no effect whatever, although my may note actual magnificents; After this I took of the wine and put on more of the same sign, but compand only of 6 wines which I carried around the armation 4 times befor factining to communitation have then were connected up so that the hard wen attimately Position and Jugation, This fam no better ments other the other, how I compare that I am stamped (to use a westimisms) and do not Know what the shoul is the mater, nor where to look for it. I do not think it is in the magneto as they sum to work will and the armation sums to Julgier all the condition 30 " Cut the line of magnetic force in a line purpulantes to its direction" I had given up all nopis when a friend of min suggestive my writing to you a statement of my care which I have done as above, but I conpres with my little nope of an answer as I know you are very may and I suppose totaine with little like this on Every day - Still in Edison of you should answer thin I will feel placed under many orlystion which I may river be in a position to return but if it should

your ony Russelfing Cly movies burte



General Offices, 74 Market St., Chicago.

educted to very exercise.

Chiland March 11th

MENto. Park. N.J.

have nad and heard so much of pour injunous and invention howers. That I have concluded to write I'm an idea That has been in my mind for come time I am not able to make The Experients required but doubtless for an gully able and four good judgment on even mice eron the if it is worth any thing or not. There are arran you punt need of a Mariners Compan. That sile in proof against all Local atraction. As me know the atemphin is almost any time is a Conductor of Majorition. I Though is a Compais midle or majort was in some way placed in a place find aother brand with the air Exhauted the mark a what bacumer was obtained. That The mudle would still retain to attraction The North and south, and This Vacuum would amon a mon conductor of Magnetism or doeal attraction and in This gin us a Compass that will from true on all Ships of and other plans when the attraction is so peate

127. Pains et Christand Mehitfully yours aly mc Donjack

Sparta, Ill. med 20 Thos A Edison Dear Sin acknowing receipt of your for : of 16 mots for which I return you my sincer tanks. I am mon than pleaned with your Kind and diagrams. I think I understand it July, the trouble with me before was, that I was working with pains to keep it so. I so to work encine I will report to your and now her Edison of Ever you need any information or similar some in Routen Illi let me Know and I will altered to it as promptly as you did to my engline some lor ha

Karlin bido, in " clay movies

I am surprised that you did not receive my ugis tered letter as I have the postal receipt with the seg nature of your searchary !! At your request I repeating proposition: "Throwing that Gas Companies are troubled on account of your great invention; an idea suggested to me to make wee of the gas as ful. I discovered : that theap gas may be manufactured by means of steam heated with a cheap combustible

material in the hot retorter; by this process the gas will be very hydrogenous and consequent by afford more heat than the gas used for lighting. I would like to obtain a patent on my discovery and intro duce it through your influen ee, therefore I invite you to take a half interest in this business; If this project will find favor with you please process a patent immediately Be so kind as to inform me at an early date of your dicie ion and address all somme. mentions to Nº 1403 Scott St. I have the honor to be very

horse power. 2/2 feet ling 10 mch wone dependence april 5, 1888. Mr. Thomas a. Edison; Richmond,Ind 4/6 Dea Lis, Will you The A Caison be kind enough to ensure the following questions? What rigid case would enlose Menlo Jark Dear Sin a I hores power Foradie Electric motor? Permit me to ask a 12) What sized case would enlose a 2 favour from you if m your house power Faradis Electric motor? four to communicate it 3 What per cent of the power will place me under lacting generated, con be conducted Migation over I mile of wire and I wand a receipt for our utilized in a faradic motor? fire proof adhesive coment. Yours Respectfully Chas. WhiteKer in My experiments so for I have failed to get it hence my Milwankee, Wiscourin

Hopine, to hear from you at your which commined or romain your Fireened

application to your self for Mounty in that him was my englation in the matter of district light paper of any

FRANK D. HATFIELD,

REPRESENTING

COLGATE & COMPANY,

Perfumers and Soap Manufacturers, New York.

DATED, Day Sint of Showing of James in the said of James of Jam	£1800
ask of for and forward to ask if without opening or replanation	
ask of for and forward to ask if without opening or replanation	
ask of for and forward to ask if without opening or replanation	
ask of for and forward to ask if without opening or replanation	
Control of the contro	
believing nothing but to burnered me to in busy mon with yourse	ż
as to the nothing (on as mean to think us claim candense a requesty to him	
on when Entire lessure what substance on material, out of which a	× . ,
Sommiff or night ag and be made, is he most absolute our peop	sek
non conductor of sound you down of.	
Thave not eleft over & home -	L
of top in 12 year are in abolity to sleep of all turns afor quickers of by personial the conservation that mythe be four photoleter supplied to the surface to be the surface of the surfa	
wise, that week for or in on an covering it would that from my hearing - of line	4
sortially - the distinting sounds which way me steep . If then be a perf	ceL.
non conductor available for the isse meritioned this signing will of comme	The
wer sinductor would for it is mentioned this Enguing will of comments to for who was and whom way Enfecture from sever of humants	paid

a Rubber Typple Closed at Balliand

My dear Siz. Excuse my hispassing upm your very valuable time. I mely ask 10 minutes of your serious Thought. Place give it to me. I have dis covered a new ap. plicahin of your val. Finded electric asomerod current. It has nothing to do with the production of light. But meets a demand go universal as that for light. The usuand of electricity needed in the application of the current to the xero use, being far less than that required to per. duce light, it will be so far less less es pensive to the consumer. The difficulties surrounding the carbon points" or the shihi are do not enter at all into the new af. phicabin. The fact of a subdivided

Indeed the orffindles in broducing a continuous light are exactly the heaves That occure the utility of the current in the new application of it. and I am quite persuaded that this new of. plication of the current will be as val. unble pecunially as that upon which you are now Laboring . While I am equally June Mal cineralin Sunghout all ils camifications will be certainly as much benefilled by my descenery as if you had solved your part offer problem in the production of light. . Now a single word more and I well not hespass in your line. If I were sure this lekes would reach your eyes before it was read by any hody also I would not here tale to explain the maller to you here and now, be cause I have per. fret fouth in you. But a man in your

electore current is all that is needed.

position must of successfy ourround homself with pickells & nitposts to be protected from the almost mumicible rulenuplino that afflict him in the from of just such letters as this. If therefore you will drop one a line ging me legal assurance that I may be ase equilable shares in the propile of the new application of your work, and I shall be entirely content leave the part I am in hile I to your our sence of pishe, - I will estplain it to you and you can then decide no to its value , I guarante not to emoune a sheet of foolscap in detaloping the idea It is so plan and so simple that you will

be able to see it in a mornial. I som a clergy men of the Foo lestant Efficaped Church, and can give you any refusence you may wok both in Ken york alf it is the South: answer at

Columbus This aper. 80 Ry Wallingon your convenience and address Rev. Win Munford . Rector S. Paul's Church. Share been hoing here about sin weeks and here it was that I have been wiling to they I stimbled upon the idea of which P.S. Isaed quantity of elaction required uned be less, required would be same

Heekanies bury Cumbbland Coling Clark 12: 1880. Dear Sir. Well you C 33 oto lbs for mins agricultural community to crying the 9 Hubert

I till be pen that a new Small boller bound for a round from the old penned from the only of the only Will I possible for one at a glanes to you The highest cerults would however be What I wish to present I am since oblained with a Senerator not a boiler long the ceneralis is is pursed over but will be given from the interest is taken in family you would feel a deep interest in The Same is their nothing of us much Quite a small Lige Senerator, would Gurant importance to the universal use and duces Singme and at any pressure as deglee of of the Electric light other things being qual Outer heat in the Steam deared 5000 as that I wish to occure for a minute of two more degrees Dufir-heat involving as your aliention to in this Communication and a matter of Course an Engine not effected my wiriaush by it and this is I would not trouble you Knowing how fully proposed we a part of the plane you are enjuged all the time were not not a plunger perton lingue but a clouble acting verticular horizontal sever as to what I shall state as briefly as engine and interely free from any proverlith of mywe from the Atenual or where its desirable to use it the good possible. It muy be when I write power Do much paving been claimed for wonder ful in gelling for Testing and from nothing you Probablic highly heated thein as a feeling of repulsion an mounter myself .

"Com realizes in my own experiences how this may be A Reginator sut will give all good Could you be assured that Dum by any eyou'd all the test wills of the Regenerate Dimple means Could be made to do the work and be almost universally applied in. cultition to which en application for turning it is cupable of cloins , rather fuel The Briler or generator divible and reliable Small Compart pleum Protoro to pleut Curs or the Engine also their Jan Que you could At other west to which the prisent form of not fail of a deep without in it - if where Steam Engine is out applicable a rowwer smell the bore of the 112 5 paints of coal are now used 1 pund would do the same work, well . " trust I Contes luces wen I Shough only I tintle Can Do What were judging solely on this The area of the regular rizes they will much of the plan would grant the claim always umam perfectly clean however just made, While to a very radical Corosive or Cooks or dish the fuel mus Change in the generaline Copporation, also in be und may be kept of a very high heat The Engine so that gradly higher prisare through a long take of the small bose stated and heat muy be carried, I propose such a much to But I dood of twee this face a Change Decump all the Conditions of would do the work of or it fuck of the legular perfect combustion of the fuel fuel tube, - The statements just made I am any kind coul, wood, pravis hup civire lothe visionano and impractable as and not so de heat need be last but are true and will be fully admitted Phould I have the pleasure of heaving your up the Printe stack _ It is not a

1 Cambridge Mass May 17,80 Cambriage, Mapachin the By Hackins May 17, 1880 Professor Edison; wan Su, The N. W. Herald of Saturday last announces that you are sugape in adapting the election light to briogs. I do not know how trustworthy the uport is; but by one of the enclosed doe. munts you will see that I have reason to feel interested in your efforts in this dies-Tion. I secured patents on my inventions by the advice of my and the state of t ow teacher 2 neighbor Profesion Benjamin Peine, to whom I ful at liberty to experyor for any intovination concerning

myself, - though I may as well say her that I am a clergyman & have risited time the orean Jina 1862 The object of this not, however, is not to warn you of the ground as belonging exclusively to me, But to say that I should valou you services in hulping to bring The invention to perfection, and would be disposed to cute into any equitable ansuperent busy to contain into this give you are interest in the prof. its. I have spent much time I money on this inventions, & on others involving different of. plication of the motion pour of the mans, which, Though Secured

not in that line Dear Sir. Immed wich down attention to Column headed hum Imention in Scientific american of bring 29th in paperine to a machine for firing Latter Spikes a uniform to you intend geter ding your to on thether you grant me an interview and allow me Is how you Specimen that I think pill fathering you in popul to the free free was the town on to the premise of the trusted in it is got from ill to just folly in a letter They are more timber to be the C. P. B. and I shall be feed It Show you popula for Engine

Software, hith Land low after for has been feered and other how to be the been from the first of the party of the little lifetes of the land have been first life lifetes of forthe land, the is one hop long will have to use for this family Since I affect to you as an of the how you entered finding and that that the inventor of and he still pay fright better this machine is an inventor map. In a front of affected for of my man putting is for you pull amount to a great as bruchinery for and has much led and be the meints of ding through his kinestins fortune a choritable ach termed a holter for many. He is a from more and inventor. When I mentioned to well and in your and although friend that I intended seeing you the two on shifty for frame and from the form they lingled be two on shifty for frames and from I form that the thought attack of that I have a lary and fire honers expired any that all many time so pull so any other closer you and prime I form on pull so any other closer you and prime I form of form as recompeting, but I total them Mothered bolom the eden I begged to differ, for among secured to me to allow you tally pert mind fleft him taken of how billow and made proposed to be found

Fortham my may 28, 51 marie & Shay a June 1, 90

This town a young main who claims to have made a wonderful diagovery of some motive power to any kind of machine that is run by steam and he says, at less expense than has ever

been done before he it wany anxious to then it to Dome one that has capital and herays he will convince them in avery little time that he can do what he say now then is a machinist at the singer infe. co. who is trying very hard to get him to work in the But, I am agnainted. with- him and would like to have you see him and talk with him

Clizabenti ng July re. 80 Holdeto trave

am to address the County agricultural Jociety on its I intend to make comparisons between its early days. its present, and future. From the vast stride made in the use of electric ity in practical instituers, within a few years, I am so guine enough to believe that in a not distant future. the farmer, by its means, will plow, till, seap, prepare and take to market the products of his soil Having taken great interest in your wonderful inventive geneus and scientific attainments. I am induced to appeal to agour as the best duthority to know your opinion on the subject and if I am to be considered too sanguine. I know how valuable your time must be greatly appreciate your kindness in replying Menlo Park

Canufacturers. Xuam Son. New York, Ang 382 1880 Six Momber Paste N. J. Grecipitale The mindon Looking Gla

can be very much improved upon lactricity buy of themas of all should think for our gampone the electric by for our gampone the electric fluid contay be applied by we otherwise, similar to Mills Plates nock. Manerer James no simil should you deem I advisade there lines , we should advisa ble War Josh. City.

Par of Lown Miss Lit 15 50 graph of the sharp. Thomas I Odison Bry Moulo Bek New Jork 6 Z hy few lives to your is to ask if there is much an instrument or company to be had, for the furtion of funding here & cannot be found with out the assistance of asid confine . and a that you are the only person of whom can get information , 3 if to be had would can't grain be a de litting confer a favor to Jour mak Obesin

Memphis and Charleston Railroad. Sunavou mis Seation, of Thomas A Edison Menlo Dare The ideal strikes me that a sevention Caned be made to dry lumber by electricity. Some dry Rouses for drying Cumber use Steam Some that die for Juneces and I talke from or to a days to day and a Kilm of lumber theroughly. Now if an invention Could be made to turn on the cleatie Durrent aday the Jumber Unibermy Day in DU Roms of not Dooner you see it wanes be more Gaster evaned take well dix wanted Save Jahan as X tarles Several men to water a dry have when lumber is drying while the the invention of Speak of Goals to affected Could be turned on Teft to tool until dry without any danger Of the lumber being beaunt up, It this Coned be kone am catiqued & manes be a propitable invintion Hora money Could the derived to

Gram the invention Montes Theres large summer of Money invised in drying at Juneuen Maw for something that well any of greech, She or bevrement de the invention are merely ideas of though I would drap them to you as you are a Desentific uman a Daned Arabasey ligh them into Samuting prostreal abenedicing to the progression agr. Donating that you will forbean with them remarks alf you find then worther find and them in your wante backet Jam Very Respey the former work be now a problem where Jane Barre Born factor and the commentary bear

HAVANA, N. Y. Howember 19 1880 M. Edison to learn if you fromit me to use the glass tube in which I drew a . penoch draft, to try unexperiment with as a transmitter for my kind of a phone for hearing on that I have got wife this week, and if you would let me try for an experiment but not

as to be spring 30 thing against your patent; and of you would like to see a draft of my phone I will and it you, please our by return much wester I can and if success I will let you have the phone to patent, will be greatly obliged for your favor. Grand Brame 0.0 box 219.



Washing Cleans

allow the besides I be for give goods, oblight by your informing me when some he have on personal her before it should be formed the property of the property - dell be glad to describe shortly the more in frey new peronan heal , that A. 53 promine & debails of Glass for the list got for Paris intersted in o . Int , as I cannot have that they are better is or models - decessors (as far as , must be some made public) .partient Jen a parapaper lateral parties of your of good francis on the probability of hand marget the made number of your is at your pate

1880. Edison, T.A. - Articles (D-80-007)

This folder contains letters requesting Edison to write articles; correspondence relating to articles about Edison or his inventions; and letters from journalists seeking to interview Edison at Menio Park. Included is an article by Edison, "The Success of the Electric Light," published in the October 1880 issue of North American Review.

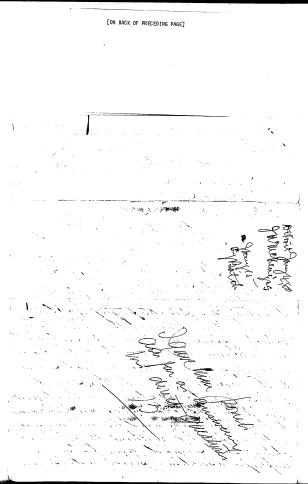
All the documents have been filmed.

Romio: Tanuay 2nd 1850 Thomas of Edism & Dear Si, I forwarded to the Cincinnate Enjure my report of your new lift in Tuesday last and mill sendejource copy if Letine . with in any case watch its offerium and let pukun Il Shady the Editor of the medical Record his asked me to report

on M. Richard S. Rhode's Audipline. - I called today at. Cusuell, Hagard & Co who has the charge of them, but They declined blown one to me tomake midefeedent and reliable tests - The Nohole survivading and Thin behavior, suggests something very In appearance it is a rubber Johnnen fan , if you have seen me , or can till me the true ments of the nistrunt Iwaned be greatly obliged . -Yam Visfelfield Michels. Car of Cucinti Equi

THE WESTERN UNION TELEGRAPH COMPANY .4 EAD THE NOTICE

Grand Trunk Zailway Company Minlo Dari here of ain sitting Johny Thomas Office at In Jonation, it is now nine days & my arrival + I still live, The absorbine topic in all cercles har Edison this light as leas of the blooked has Stock holders, I sent non the Hen benes of the 30 thult. in which appears what is supercented as an interview with me but the fact letter which Swarts to the Editor + which they saw fit to mark interrogatories which would give it the appearance of an intere but the language need by me was on actly as printed without the shipties change - if I made any false or improper assertions plane advice or



Grand Trunk Bailway Company of Canada. no very direons great suffering in the last Colin tym will say is the w Taxions Fiver on me m a great of pleasure of you would en down + priscribe for him a him him personally or get or you condully of does not ried in DEtroit and am the answer so it may appear of Lamileoper, Will I have acieled for bymal my uple of have secured the cooperation the heavest formers whealth for will as the most successful investice business min in the state

Grand Trunk Knilway Company of Canada. I from an appareine person of Um. Balch who relied upon carrying the same parties with Mirtale upon the promise (as he says) of hove Genn & Tracy Q. Eden would sen be got it whom the time cam, after considerable talk to he was told that upon in condition would they (the parties in quetino) have amptime to do with it miles Mr. Mackings advantag & askindle + Incognized whereigh Gor. B could in & accepted the setuling, Inspect to have my arrangements complet in a few days whom I will sutner to day & som after be followed by a deligation to investigate onathers at sunt Have your lamps all lime highted continually since Ileft have any of them become dull or failed in any way as intimated by the Enhance have gen changed the form of carbon whom - Have you get succeeded in gotting a carbon of a greater resistance

(Form No. 4.)

martiner + if so does it mall gun to get an inchessed number of lights for At A how many could Detroit or ains other at In report to be able to feet in your Lystom, In farmine on John Coronlo rimarko in todajo you might infir that I represented myself as giner agent. This I wish you to indisationed I carefully avoid I have had much trouted + annayone in Consequence of such statement lines and any article of merit can span - Has Prof montin condisended to visit you go nt got out of did he say, more portioned with the lone of dign to vanchauf a rip James Smeier Can Viernor Brooks 33 Congress Stroit

New York, Jun 5- 1881 The Edison. huy dean En I sent herewith a proof of the day namo article, also the tracing which does not infresent the machine as it is on the block, The Crank while is made Qualler out the machin is changed in several particulars so that it - 3

more nearly correct. to the lawf as to the article I hope Juhach four trul you will return it at Chro Mr Stopsins the Earliet possible moment and on no account delay return Is when will the ing it longin their Friday morning, Mr Richard son is writing up our west to your place last right and well un doubtob, gue gan a good "rend off" of Thall give him what facts I have in segunt

one of these days, even if you have not already attained it, the Dean Sir. supplicism whom the subject, and Referring to a paragraph its would stop a good deal of in our back issue of the fournal adverse criticism and insimustions a copy of which I send you were the actual facts, as to the cont I have had a number of probes against my assumptions, that the Electric dight is a success in an economical since. I would be great sthinged to you if you would give me the date to anymy our cirtus by informing meathe actual summet. of proven intended in producing the highes, and the date upon which I fully believe that economical electric lightning will be achieved

23 dynat modros 11) 20 2 Ma (No Melin Fort Office, Uncontain Jan 16. 80 On Ingagement at Maching Son, part termi-nated, Som find myself, to for direngaged of to avail myself of your kind after to Council one with dome encidents in Mon life, in which the Book of i non so largely interested - of therefore you mile do In the Cares to name a line when your Theyelf quatty chiquet . Helien me, my Dear dir kny Truly for Menton Park

THE WESTERN UNION TELEGRAPH COMPANY ions pavaus kubling

pay that we are also Jan 23.1/880. Dear Mr. Edison,. I was greatly disappointed in receiving from Mr. Upton yesterday a postal sand in which he stated that he could not promise your article by the 1th of Try next. It I cabled to Earste after seeing you at newlo Park That The article was forthcoming in will be very embarrassing in many ways y we fail to publick it. It would seem to that the true was cife for some official statement over your own signature, blessel Therefore do not disappoint as, our allew her. Upon beposeed with the perferation Byon paper so that we can have it

They Truly, govers, Sohn & Barrow, Securary,

" white soul

Office, No. 2 Ann St., (HERALD BUILDING.) On Edin Der Gry, a representative of the Palyram, Kning a recent great work of de electric light that you would and a few of fire lamps to Pais for inspection . Briel . En. Show

The Scientific Publishing Company,

- M Gren Garte

New York In arch 3rd 1880

J. A. Codison long.

Gover favor of Jan. 14th

John Jahren state, that

Missoure is before me. You there state, that you might be able to make known in a few weeks, your process for

be are very much interested in this, and the writer would be glad to call and see you with reference to the matter upon any day you

may name Gery Gruly yours, Edwin Bolitha

. . DEAR SIR: The editor of "La Chronique Industrielle," 15 rue des

Halles, Paris, France, has asked me to prepare and forward, for free publication in that well-known scientific journal, concise notices of important American inventions, processes, machines, etc.

If you will kindly mail directly to the Paris address abo

I will take pleasure in sending over the necessary description in French, immediately on receipt of your notification that the block has been sent. If the block be too heavy for mailing, Terkuile's Express, 49 Broadway, New York, will carry it at special rates, for a trifle; but express charges should be prepaid. It is best to send the editor a postal card stating what block you send, and by what mode and date.

I would be glad to have duplicate copies of whatever printed matter you have, bearing on the details of the subject, together with any written suggestions you might wish to make.

R. GRIMSHAW.

Address ROBERT GRIMSHAW, M.E., PH.D.,

Franklin Institute, Philadelphia.

HALL OF THE FRANKLIN INSTITUTE: of course Rend nclosed sheet shid inter

The Herald. New Work, Much 19 1580 My Don Sin I fay anther visit - I Mulo Park to monon (Saturday) 12 I would like yo can account of the number of has Infor one dutthing out falls about the milling office. I to talk with we

amptent writer for the perfore of john all the facts in good shape of petheating remain unknown transford

All the effection a paper of the principle of account of the principle of

On Milling Mch25:80 The Herald. Huald. New York, March 25 15 Dan Me Colin the country ms article. But I suffer it will As you would to be allow The atte befre poli-I said it to you for hener. Mulle whatever Men it bank with is little daly

P. S. I would like theme to a Table ofmy how much the difficult kinds of

Rugolyson THE WAY CHOOK AND THE Consideration Unfortunate experience with, first show " at the other the Zon will give no to make the first presentation of his, with drawings. Electro: moto - Talegraph? Can me get something about that? We have at last found zon out! Read the inclosed, and tremble for your reputation with the pros !!!!!

Ver trulyour Rujohuson.
Near 24.

Does Fox sleep sweets these night?

18 0mg



March 31 - 1880

Dear Sin, - Deen we to introduce to your acquainte

the Frank Bellew, are artist conweeted with Marper's Weetley, who

to an illustrated atiels.

Respective

6. b. bonant Esien Hupin Walg

Mr. Thomas A. Edian

Office, No. 2 Ann St., New York April 13 188 0 me kans whe gen and and you land for the grand grand grand grand again? Jes truly Es & Shaw 2 brake - some hape none get to frame There will be som

Office, No. 2 Ann St., Mh Edison
Dear Sir
My best thanges for
my letter assir yours truty y Ashaw City Editor.

new Congland Hotel time . What I want to apreial fronts fromto elempnich your extens the latest tests I for it rather deflect work as the materials are as anich diffuel ments Park June been gaged almost

Rolely in looking upall. The As the Am Umon expect details about electric lefe ten to prevent the Judgement in the Prage patent being entered up. I have not arrived at any decision yet what I will do I I mide a very interesting discovery of that is that Alterell are the inventors of the rich angular, or auppour it will defind Storpetudinal method of winding an amature for which they claim & home an circumstance John R. Regredon got so much credit I also found out acuetting on regard to miny aoutting almost exactly the pauce as you propose to use. I came here to the cety bespecting to go to works for the Am Union. In fact hand an idea of somethy new in the relay line! but I am undble to do anything with it at present

The Wabash Plain Dealer.

PLAIN DEALER PRINTING COMPANY, Proprietors.

THEREON W. PERATOR. • Established 1859. • THAN DUTLERS. 1004.
Subarth April 14, 100, 2,402 S Washash, Ond., Mary 28 1880.
Homas a. Echon Eog. (May 28 1880.) Forar Sir We have always been a
We have always been a straight advocate of your Electrical Railman. John Electrical Railman
Fother inventions, your Electrical Railing is a worderful invention two should
dearly like to republish the illustration
June 5th, Can you not send us and electrotype of that cout; we will published to the account of the Earl word in full, the
will use the electivity carefuly spromptly
spread before the people in this region
for us true will duply appreciate the
for us true will deeply affreciate the favor Thurs, Keatar Elian,
thun,

The Wabach Plain Dealer.

PLAIN DEALER PRINTING COMPANY, Proprietors.

THERON P. HEMATOR.	Established 1859.
F: 1	Coiroulation April 1st, 1980, 2,40). →
	Wabash, Ind., June 13 to 1880.
Thos a. Elisa	n En (
menlo	
4 <u>4 </u>	Dear Sir
~ · · · · · · · · · · · · · · · · · · ·	Your Kind favor
	of the the lectionshe
	Electrical Railroad For
Whe in the	Claim Drater received frome
4 to fat the	Electrotype has not jet-
arrived, ole	are forward by Express
at my Expers	as soon as possible the
have reserved	the first page for its
weather & a	escription of the invertion
as from as it	arines , the will use it very
carefrey M	Very Truly Junes
	my swy Jung
N. B.	Thhom & Keatur
The ent-ry	and to is the one that appeared
m verwyrc	umorican ricery,

THE GRAPHIC COMPANY.

Rew York July 23 1870

My Dear Sir We have to thank you very much for your thought ful kindress in sending us that kindress in sending us that as you have seen, we made good use. This will be knowled to you facilities which four can give him in the creention of the purpose of his visit, will be appreciated & res. I will be appreciated & res.

n Ers

1 Touthampton T.J. Ung 1900 I am a provincial Editor on my travels. On my way home from this shumer resort I shall pass through New york cit; and it is my purpose, all things being agreeable, to run down to mento Park for an home or so, and view with ungratures Eye the scientific wonder of which I have often written aires only by inagination. As I am restricted as to time, I take the libert of ruclosing a postal card, addreped to me here, on to high I should be glad to have a line saying whether, if I skould exist

your laboratory on Saturday, 21th allegach, or Monday, 23°, of could have a glumpee of your electric light deschiney and the forman bailong - and at what homeothy are visible.

Somethy that I am not improve for mature, I remain for mature, I remain Per Success your - Francis E. Leupp.

JOURNAL LES GOLFE DE NAPLES

PEUX Fère ANNÉE

Mith great pleasure I have received and admired your photographic portrait, and I thank you for they highly agreeiched mark of hudsep. To achumiday my gartichede I have the known to send you some Net of the Golfe In Naples of he day, in which I promit to the results to repudue in a read the your likewest. I would present please of the very oblight be you if you would please of the very oblight be you if you would please to inform me hipsoham of the number of copies your could like to have and favour one; for the No in your,

with some biographical notices, It is the importance of my newspaper, I want to reclass that the golf is Naples is suit in its timber for the foreigney and townish in Hely and must promp in the heart hotely of itsean sowns and sally.

With the greatest Smarking the Souther Galdons fase

New York Sept. 15/160 Mr. Thomas a. Edison.

wa. Edwin. Dear Siv: Will you Telease advise us what amount we shall send you in acknowledgement of your con-tribution to the October number

of the Arth american Review, and very much oblige.

WESTERN UNION Telegraph OFFICE.

What Super 17. 18760.

Dear Live.

Showe just nationed from the 19st on find your note. I will have your plats east to you without delay and shall ask ingraver it is can be electrolyped. When I was capies for a second edition I will thust to your paguading thins. I have come out - 1250, and so with agent ing latin Alace only 12 capies left.

love tridy [A]

l'AMia

NO
PATENT AGENCY OR MACHINEK
DEPOT
CONNECTED WITH THIS PAPER.

THE INDICATOR.

An Illustrated Journal of Mechanical Engineering and Applied Science,

Thomas a Edison Eng a ((right 1880)
Thomas a Edison Eng a ((right)
Then of Park N. f.
Wear Sis
Socad your paper in the Och. No. Mu. Rev.
with pleasure, and I am so interested in
the Subject that I should like permission
to reproduce it in the Och, number of teers
journal giving you proper enough.

THE NORTH AMERICAN REVIEW,

u Baleson;

I have been absent from the cely, hence the delay in

replying to your note of the 17 to.

Please accept our very perican thanks

for the article on the gladic fight,

Me mile send by mess made a for of copier of the Meriew.

Very truly pours,

S. P. Meleay Bus. Tago,

Boston Oct 1380. Thallowin 409 Washington St., Boston, Mass, Oct. 13, 10. Mr. J. A. Edison Dear Lir: -I propose shortly issuing a "Seientific Annual," to contain a brief notice of the most important ecientific work of the year having a popular interest. If you would like to have reference made to any work done at your laboratory 9 shall be pleased to receive an account of

the same in popular and very brief form. As this annual will be sent to 8,000 American newspapers, which will copy from it largely, any information it may contain will be sure to reach a numerous andience, and he very extensively read by the general public Any communication should he sent me at once Very Respectfully, Ellehadbourn.

House office, Bonton, any out 24. Dear Fi Eurland please bind an account of a new appointuis In aghting gas strut Camps by electricity, which I famy They be of intent to you. Banneys, the inventor, is a former reporter on the Sonton Hured, and I believe is the Dame snow they sent to with wfo gran light some mentions Jimes. Phase be some and inform The a full week in advance The general lighting up which other day. The bride ga Artinghet sends he argands. Juns, Re Bonton Husel oboins.

. 051

þ

■ 1000 mm = 1

Published Monthly. Volume 181. Number

oer 4.

THE

NORTH AMERICAN REVIEW.

BDITED BY ALLEN THORNDIKE RICE.

October, 1880.

NEW YORK:

D. APPLETON AND COMPANY

LONDON: SASTRON LOW, MARSTON, SEARLE & RIVERTON,—PARIS: THE GALDRAIN LEBEAN BERLIN: A. ALBRE & CO.—GENEVA: J. CHERGUIZE.—ROME: LEBECHE & CO.— MELECURRE: W.REBERTON.—YOZOHAMA AND SHANGHAT: KRILY & WALES.

red at the Post-Office at New York, and admitted for transmission through the malls as second-class.

[PHOTOCOPY]

THE SUCCESS OF THE ELECTRIC LIGHT.

Nor a little impatience has been manifested by the public at the seemingly unaccountable tardiness with which the work of introducing the "carbon-loop" electric lamp into general use has hitherto progressed. It is now several mouths since the announcement was made through the newspapers that all the obstacles in the way of the utilization of the electric light as a convenient and economical substitute for gaslight had been removed: that a method had been invented by which electricity for light or for power could be conveyed to considerable distances economically; that the current could be subdivided almost ad infinitum; and that the electric lamp was henceforth to be as manageable for household purposes as a gas-jet. But, so far as the public can see, the project has since that time made no appreciable advance toward realization. The newspapers have reported, on the whole with a very fair degree of accuracy, the results of the experiments made with this system of lighting at Menlo Park; scientific experts have published their judgments, some of them pronouncing this system to be the desiderated practical solution of the problem of electrical lighting which has vexed the minds of physicists since the day when Sir Hum-phry Davy produced his famous five-inch voltaic arc. Still it must be confessed that hitherto the "weight of scientific opinion" has inclined decidedly toward declaring the system a failure, an impracticability, and based on fallacies. It will not be deemed discourteous if we remind these critics that scientific men of equal eminence pronounced ocean steam-navigation, submarine telegraphy, and duplex telegraphy, impossibilities down to the day when they were demonstrated to be facts. Under the circumstances, it was very natural that the unscientific public should begin to ask whether they had not been imposed upon by the inventor himself, or heaxed by unscrupulous newspaper reporters.

Now, the fact is, that this system of electrical lighting was from the first all that it was originally claimed to be, namely, a practical solution of the problem of adapting the electric light to domestic uses and of making it an economical substitute for gaslight. The delays which have occurred to defer its general introduction are chargeable, not to any defects since discovered in the original theory of the system or in its practical working, but to the enormous mass of details which have to be mastered before the system can go into operation on a large scale, and on a commercial basis as a rival

of the existing system of lighting by gas.

With the lamp and generator which at the time of the first annonneement it was proposed to use, the electric light could have been made available for all illuminating purposes as gas is now; the expense would have been considerably less with the electric light; the lamp would have been quite as manageable as a gasburner. But, fortunately, the unavoidable delay interposed by administrative and economic considerations afforded opportunity for further research and experiment, and the result has been to introduce many essential modifications at both ends of the system-both in the generator and in the lamp; at the same time sundry important changes, all in the direction of economy and simplification, have been made at almost every point in the system, as well as in the details of manufacturing the apparatus.

As for the lamp, it has been completely transformed. The external form of the two types of lamp is identical; the principle of illumination-incandescence of a solid body in vacuo-is also the same; but, in the earlier lamp, light was produced by the incandescence of a platinum wire wound on a spool of zircon; in the perfeeted lamp the source of light is incandescent carbon. Another essential difference between the two is found in the form given to the incandescent body: in the platinum lamp it was coiled compactly on a small spool; in the carbon lamp it is a loop some five inches in total length. This incandescent loop is found in practice to afford a better light for domestic purposes than an incandescent mass of compact form : the shadows it casts are not so sharply defined, their edges being softened.

This loop of carbon is now prepared from the fiber of a culti-vated species of bamboo from Japan. A thread of this material, value species of common from sepain. A tention of this materian, after undergoing a certain chemical process, is bent into the required shape, and then reduced to carbon. The resulting carbon loop is of a remarkably homogeneous structure, and possessed of a high degree

THE SUCCESS OF THE ELECTRIC LIGHT.

of tenacity, so that it can withstand, without breaking, all the concussions it is likely to be subjected to in household use.

The perfected lamp consists of an oval bulb of glass about five inches in height, pointed at one end, and with a short stem three quarters of an inch in diameter at the other. Two wires of platinum enter the bulb through this stem, supporting the loop or fishaped thread of carbon, which is about two inches in height. The stem is hermetically sealed after the introduction of the carbon loop. At its pointed end the bulb terminates in an open tube through which the air in the bulb is exhausted by means of a mercury-pump till not over one millionth part remains; the tube is then closed. The outer extremities of the two platinum wires are connected with the wires of an electric circuit, and at the base of the. lamp is a screw by which the circuit is made or broken at pleasure. When the circuit is made, the resistance offered to the passage of the electric current by the carbon causes the loop to acquire a high temperature and to become incandescent; but, as this takes place in a vacuum, the carbon is not consumed. The "life" of a carbon loop through which a current is passed continuously varies from seven hundred and fifty to nine hundred hours. With an intermitted current, the loop has an equal duration of life; and, as the average time an artificial light is used is five hours per day, it follows that one lamp will last about six months. Each lamp costs about fifty cents, and when one fails another may easily be substi-

The light is designed to serve precisely the same purposes in domestie use as agalights. It requires no shale, no serven of ground glass, to modify its intensity, but can be gazed at without duzzing the eyes. The amount of light is equal to that given by the gas-jets in common use; but the light is steadier, and consequently as the contract of the

298

of electricity consumed in each house. Finally, not to enumerate all the advantages which this systum possesses over gas-lighting, the lump can be manipulated even by the most inexperienced demestic servant; nor can the most careless person do injury to himself, to others, or to property, through not understanding its mechanism.

Another important modification of the system, introduced since the stees authorited account of the light was published, is the substitution of dynamo-anothenes for nungente-machines in the stations from which the descriticity is to be supplied to the seventl districts of a city. Here, again, the change is entirely in the direction of simplicity and economy. Where before it was proposed to framish a station with one hundred suggested-machines with a multiplicity of being and shafting we now make the dynamo of 120-bross power, and the station with a well-state of the station with a very considerable state of the station with a very considerable station of the control of the same time the outsty for machinery is very nucleical seasons.

With these and other modifications of the system, which need not be particularized here, it may be safely althroad that their of economy, simplicity, and practicability has been reached. The time for experiment has passed; any further improvements to be made in the system must be suggested by its performance when put to the test of actual use on a large seals.

To the question which is so often asked, When will a public demonstration of the working of this system be made? we would reply that such a demonstration will in all probability be made at Menlo Park within two months from this date. The time which has elapsed since the preliminary demonstration of last January has been by no means a season of inaction for the promoters of this enterprise. There is a vast gulf between the most successful laboratory experiment possible and the actualization of the results of that experiment in a commercial sense. A prodigious amount of work was necessitated by the establishment of factories for producing the lamps, the generators, and the other essential parts of the system in large quantities, so as to be able to supply the first demand. We were about to enter a field that was practically unexplored, and, even on a preliminary survey, problems of the most com-plox kind arose on every side. These had to be solved before the first step could be taken toward the actual introduction of the light into our cities as a substitute for gas. The practical engineer and the man of business can best appreciate the difficulties that had to

be overcome. Like difficulties have in the past retarded the general introduction of nearly all the great mechanical and chemical inventions. Years intervened between the discovery of photography and the taking of the first photograph; the steam-engine, the steambeat, the locomotive-engine, did not come till long years after the discovery of their scientific principles; the same is true of the telegraph.

But preparations are being actively made for placing this sysme of ceteric lighting within reads of the people in all the great centers of jupitation throughout the United States. To this end, to the control of the control of the control of the control of the state of the control of the control of the control of the made of the exact cost of plant in the different cities; contracts made of the exact cost of plant in the different cities; contracts are being negational for the manufacture on a large scale of engine, dynamos, haups, wire, and all the other supplies needed for the practical introduction of the system throughout the country; more light made to get the plant of central stations, to an observation of the system.

A very important question is that of the cost of this light. The prive of the electric light will, of course, be determined by the capitalists who invest their money in it as a business venture, but it will of necessity be low as compared with gaslight, though it will vary according to the original cost of plant, the demand in any given locality, and other conditions. Is in not at present the intention of the company controlling the patents on this system to supply the light directly to consumers. The company will creek the first action in Now York City, and will themselves conduct that the control of the control

So much can be acidy affirmed, that this light can be soil at a price which will make competition on the part of the gradight companies impossible: I. Because the total investment in plant to develop a given quantity of light is much less; 3. Because the depreciation of plant is much less; 5. Because the cost for labor depreciation of plant is much less; 5. Because the cost for labor development of the plant is much less; 5. Because the cost for labor development of the plant is much less; 6. Because the detective-light companies will not the to make a plant of the plant in large areas of real estate; it is not even necessary to creek buildings specially to overo a stations, or the confinery buildings, such

[PHOTOCOPY]

300 THE NORTH AMERICAN REVIEW.

as are used for different branches of manufacture, will serve the purpose, and may be hired on result; 5. Because the companion can sell electricity for two uses—for light at alight, and for power in the daytime. It has been ascertained by experiment that power may be the property of t

THOMAS A. EDISON.

TEOR'S OFFICE OF THE SUN.

New York, Nov 16 1880

Dear mr. Edison:

The Sun would like methody more as to how you are

thing on with the light. will you

so kind as to name a timo when

will be convenient for you to see me?

Truly year

a. W. Lynnau

We are almost ready no when to Come out,

Survey Um 25 Price on long de fine think? Phase though getter. Von Magnine,

1880. Edison, T.A. - Autograph and Photograph Requests (D-80-008) [not filmed]

This folder contains unsolicited correspondence requesting Edison's autograph or asking for photographs of him.

1880. Edison, T.A. - Bills and Receipts (D-80-009) [not filmed]

Most of the bills and receipts in this folder are for routine laboratory expenses. There are also bills and receipts for personal expenses. Additional bills and receipts for 1880 can be found in Invoice Books, Cat. 1162 and Cat. 1163 (not filmed).

1880. Edison, T.A. - Bills of Lading (D-80-010) [not filmed]

This folder contains bills of lading for the shipment of merchandise.

1880. Edison, T.A. - Book and Journal Orders (D-80-011)

This folder contains correspondence, bills, receipts, and other documents relating to the ordering of books and journals.

Approximately 70 percent of the documents have been filmed. The following categories of documents have not been filmed: advertisements, announcements of new publications, and other documents relating to items apparently not ordered; bills and receipts that contain no information about specific items ordered; other contine documents that merely duplicate the information in the correspondence.

gen di proce des gen alexan la processa de la proce

ENCÝCLOPÆDIA BRITANNICA.

NINTH EDITION.—AMERICAN NETWORK.

port of the Judgers-Contended Exhibition, 18th.—Great excit hedre to the publishers for furnishing in such hundrage sign and at moderate price, such a calculable book as the "Escyclopedia Relationies."

> . M. STODDART & CO., PUBLISHER: 727 CHESTNUT ST., PHILADELPHIA

727 CHESTNUT ST., PHILADELPHIX

A & 50 Worth Steet, S. F.
U. Adams Street, Chicago, III.

My J. a. Edison Mento Part N

Ofir Herewith I hand you in Noe 10 Ency a Porit - Sent to day

Noe 10 Ency apprite Vent to day

Guystulif Joseph Wilson agr

THE INTERNATIONAL NEWS COMPANY, (FORMERLY THE WILLMER & RODERS NEWS COMPANY,) 31 Beckman Street, New York IMPORTERS OF NEWSPAPERS, PERIODICALS AND BOOKS,
Special Authorized Agents in the United States and Canada, for the BRANCH OFFICES: LIVERPOOL AND LONDON.

T. A. EDISON, Juran orderfice	
The free	
Menio Park, N. J. 1880 Mescher ches ann le Spector	
Jag.	
The state of the s	
A	
to service and to spectice	
Solume. Pour a J augstram	
Shear Normaller Solviel	
- So section	Ŧ
Cura D	1
cules de oux Planers	1.
The control of the co	1-
upsar or Bahaney - 1868	
of to alm week	ĺ
Por a to	P
I all all all all all all all all all al	
Passowy this aclas comes he had between bur I areter)	
Sucus of Spear -, by n morals	٠.
water do So is with prefix	٠.
un 14 5 Paris Q DO	_
by It E Roser J. AS	-
Inan - Olmon Greenen	
Buy Comer Lug un Ohee	
1872	-
The state of the s	NO. 5-
The state of the s	

Dear of the have on hand the property of the form of the property of the prope

All the Roberts in those to write as the sin, and as specimen of Chimae Libragophia are no management.

The Character Internation of The Control of the Cont

ag press, themph our blew york correspondents D. Van Northead Co, a copy of the Biographical Cyclopeoria and portrait galley of the Biographical Cyclopeoria and portrait galley of the is in which work
we feel actured you will take an interest as an
Otheran, and be pleased to properly one or wind
Copies - the price of which is in the surrect
your own hographical excell is in the surrect
your own hographical excell is in the surrect
with be found on page 161. It is the same
will be found on page 161. Of its the Jame
will be found on page 161. Of the Ohio
people will be produced to the Chings of the Ohio
people will be surgestuded which is all expected.

As It was seman Kion to Pala 11, D. los potarended you doing tous land buises by her with the our dies for a west off willing Bee west now alo so start Affer Broken work wholelaster 20 for trail gattery of theo, we food situred go, will till promise spies - the prese of which I spill for com hope of hish exited is in the Aprix of will be found on peop 261. Stis the lame In fune shed but, How halling aged in found Japan les molas the Ordinary fille This lead Endowing our affords in the production of a work of the enaportheres, which is all surporter

BERNARD QUARITCH, BOOKSELLER, CENTRAL AGENCY for the procuring of Rare Books. Mr. Quaritch's SYOCK consists of about 20,000 well selected Wonks; -Orders for many of the better class of Standard Literature can therefore be executed at once. Book-buyers are solicited to pay regular visits to his establishment 48 NEW PURCHASES are added daily. LIBRARIES FURCHASED at their maximum market value for Cash LONDON, 15 PICCADILLY, W. 26 Jany 1880 J. a. Edisonly Gor Thaveyour letter ordering Physical Locy producations, which I into obtain & formand - probably with ales de Chime " which I have mark completed. Ishallone, advice. Your obedient dewant V Dernan Quaritch PL Doganalread, outracte to Singless Polytechnische Journal' or chall Iseed gunthe parts as usined this ye · a set ? Ishare he plat to sendy on regularly any Periodicals gan require as published

LONDON, 15 Piccadilly. W. Jan. 26 1872 80
PECIAL OFFER
Y

" J. a. Edranly.

BERNARD QUARITCH.

* No answer is required when the offer is declined.

Kerl (Bruno) Handbuch der metallurgischen Hüttenkunde zum Gebrauche bei Vorlesungen im zum Selbstottadium, 3 vols. in 4,8 vo. numerrus folding plats, half morroes next; cloth sides, 324.

Freiberg, 1855

Will you allow me to send the above?

** J		LONDON, 15	Piccadilly, W. 29	Jane	any is	888.
J. A. C	dison Esq	<i>-</i>	Menlo 0	Park		
	to B	ERNARD QUA	ARITCH.	Very for	sey.	21.1
My terms are Cash.	Old Customers who for	mutual convenience prefer to FFICE ORDERS payable at PI	pay quarterly can do	to Payment	to be then	due at
- 1025.	30 ° 31 ° 32 ° 32 ° 33 ° 33 ° 33 ° 33 ° 33			4	. st. s.	d.
1	Physical x	Society Proce	edings			
last -	PII	-X. 800		-	1 20	2
1	1 4		Postay	Ee		
8	Jan Santan				/ //	
8						
1.14				1		-

No. 27 Great Jones Street, New York, I ma 29 1079.

Or That I Edison

Mencle Park N. J.

To WILLIAM WOOD & CO., Publishers, Ar.

Of one year's subscription to

"THE AMERICAN JOURNAL OF OTOLOGY," . \$3.00

Janesary to October, 1879 Nos. 4641, inclusive.

Received Payment for the Publishers,

Millingfur.

Claron Ransen Whofflinger 625 March 920 March 920 March 920 Day October 20 18 3550

WHICH AND A STATE OF THE PARTY OHONDOS GAME PISHES OF THE UNITED STATES, WITH TEXT BY Post O. B. E ILLUSTRATED PUBLICATION IOHN C. YORSTON & Meulo Park &. J. los beg backnow leaps your esteemed favor of the 300 wish will thech for \$ 30 for which accent Manks. Would you like any more copies of the Brography? We ask you this greated as we have only a few left and when they are disposed of no more can be obtain JOHN C. YORSTON & CO. INCOMENATED PUBLICATIONS All the Subjects in these two works are life site, and as specimens of Chromo Lither ROURNES GAME FISHES OF THE UNITED STATES, WITH TEXT BY Prof. G. BROWN 600D.

POPES UPLAND GAME BIRDS AND WATERWORL OF THE UNITED STAFF

BERNARD QUARITCH, Bookseller, LONDON. 15 Piccadilly, 13 Fest 1819 I A Edwar En/ Denstin Il Britist door Repor for 1849 is just published. Shall Isun it? of Philosophical Fransactions any of the periodicals latity

1. Edison Egg Banko Cark, Surfrey to BERNARD QUARITCH	4 188o.
My terms are Cash. Old Customers who for mutual convenience and to the	
Johnand any henrypapers. rejularly.	to be then due at

ADOLPHUS NORRAIKOW VI sent you last by mail and not having you since have thought as sometimes happens that or accident has prevented your it and if so should be glad to, There is a new book first published ightning Conductors by Spon 6.60 yours buty A. S. Naraikow

ADDIPHUS NORRAIKOW,
MISDELLARZOUS
SCIENTIFIC BOOKS.
ADDITION:
PROVIDED A BRITANNICA
OBJUSTAL STITUS.
ACM York, STRUCK

Mr JA Edison Dear Sir

Slephyung le your of Ital git. 1250 is the regular price of Supplementary out of this slice as you may see by the calatry being the same with this as Male shippennation, a defende of about 1,00 formation original. I of find to should set for \$29 (far below publishing price) as I took it is an exchange for other books and sieher to despose of it. I generally sell with a distormal and do not always report it in my liter and goorne you are at liberty to do so

Grus buty & I Knackow

ADOLPHUS NORRAIKOW,

BOOKS.

RO. Box 1845. New York, March & m 18 80

Mon & L Griffin

Dun Sir

Inecewed

from Mr Edison a letter pr Carmen asking explanation about my price of 4th bol of their Stationary , why it was so much higher that what I had offered to some one else for whole set, I sent an explanatory letter and would like to know is it is satisfactory, not having heard from him since, at the same Time I send two or three of my new circulor hoping you will call the E's and

your friends' altertion Hoping you are in your health I am yours bruly A. S. MorruRioro

Washington It 10 has How much So gon in the Hansel 510-11 Banson

London 15 Precavelly tohandyon invoice of set of annals de Chime " which is now very nearly ampletor the little that is wanting Theyn ble able bolland shorth In return for the defects Shave bound the whole that it may be more satisfactory & better for reference byan & in addition Share supplied up & 1848 alonging a rominal sum in Mortin 4 the afforesemate price I mentioned fracet up to 18 y 6 It has been very difficult to get to as it is as in nearly every lot of vols lottames found several imperfections.

There shipped & Balowin as before. + Bit of Lading Sendose to you Duplicato

LONDON, 15 Piccadilly, W. 19 March J. A Edison Esq. Menlo Park. to BERNARD QUARITCH. Terms Cash, without Discount. All Books are sold as perfect. No claims for imperfections admitted after a lapse of 2 Months. All goods, whilst in transit, are at the risk of Consignee. Post Orpice Onders payable at Piccabilly Circus, W. 1128 Annales de Chimie et de Physique 1789 to 1878 inclusive. (wanting Series I Vol. 92 + Table Vol. II. Series II Sable 3 Vol.) = 290 vols. bound in 175 vols Cases not charged Carriage to Reverpool Capenses at Reverpool Consular Invoices ج 10 In one Gaze narked T.A.E. NewYork % Baldwin Bros. 16: New York.

LONDON, 15 Piccadilly, W.P. Moscoch. 1880.

St. G. Ediscord Eng. Meserle Park, New Jersey

10 BERNARD QUARITCH.

My terms are Cash. Old Customers who for mutual convenience profer to pay quarterly can do so. Payment to be then due at

once. Post Orrice Oadens psyable at Piccadulity Ciscus, W.

Gestage

Gostage

100

I A. Edison. Meuls Purt AND. Philasophical Society france dions Calf contains the food which will be out and ofold Selevately, if decired, VAD1289. account of some made in trade chalenums and a new process for seperating palledieno from that Metal by Colludationyer U. Sillint price 504+19 Ato 1280, an altempt to accertain the Via Decount of Ryrominical Experiences made at Award A. J. 1817, by Haster, with a plate Price Totto 1/202 an Inquiry into the cause why the state iffe to the offeritory lighter than there are in a state of facion By Jos Cloud price 50 4. +1

No 1179 Millinson Galvaniem, from
the frist paterimento of Jelevaniem to
the duent time. Octavo theep, gill took
2 gold 938/2 ages, 13 plates, many
ones from 2 25 4 21 st.
1205, Lyeu Block Illegraph and Clothic
docking vignale, Detros clash. 7354.
instuding over 6000 illustrations of fatests,
new, there 351, 4214.

on ordering please give the humbers

for 1269. Goldenithe Elevimental.

Therophy allustrated with 24 perter
in Lord 82 glip, very rare not included
in Goldenthis world, partly published

the his death. frice 300 f 22 ti

Lansingburgh, N. V. TUarch 25 = 1880 Dear Sir: I have in my possession a boon published in 1850 Called: Annual of Scientific Discorry a year book of facts in seeine and art." It contains pertrait of Louis " and art." Agasis, and trate on such Dubjects an Michanics, Unific arts, Natural Philosophy, Chandry, Achonomy, Mckerology, Follogy, Botany, Mineralogy, or a It must quit thuing on Chetic light ve . If you han no Queh Volume in your Collection I should be glad to add this one us a small tribute to so celebration a genius as This formain it by Expires to any place you say if you will to accept VEI, Foul Calin Exect Thoma a. Edison Wendo Parse

Washington Hb. 24 Months of 18 miles thanks of 184 into on Hamil about them the same that 1800 the same that 1800 the same that 1800 the same that 1800 the same that I washed to be same to the same

	BOOKS IMPORTED TO ORDE	CR PROM EUROPE, AND FOR I
	M saldin	New York,
San Property		

	Bought of D. V. Bookseller, Pub of SCIENTIFIC, MINING, ENGINEE 23 Murray & 2	lisher and Impo	rter,		•
llefue	E. E. T.	nOung new	16. Manns	Ve STAIRS.	>

D. VAN NOSTRAND UBLISHER, IMPORTER AND BOOKSELLER, Ta Edwon by menlo lark chf Dearfir / Small youtoday acabalogue of architectural books, carle de Lappy to send you such books for furnin ation subject to Dehorn within two or three days, as you may descre

T. A. EDISON,

Please (In I cheek on prayments of Book of Parocoto ordered by Bur Mulsarfin Alease accept thanks for brouke

Very brug The Edison Cayer

T. A. EDISON, american Watch Tool C Mass.
Machan
Mass.
and ask for their catalogue of
automatic power machine
Lew for one of the sorewoo and
lell them I'm for the rige
Vull give you she sorew)

T. A. EDISON, White to Yohn Brown Sudiangholis . them & send " Inactical treatise on He pressure Steam Boiler by W. M. Barr Vrite to Elesso Henermann 40 John St--- New York for their catalogue When auswer from Waltham tool Co Come let me see in

J. Abdicon Philafund 1 et fo ! E. Frobe Dr. 100-14, 1879 Lo Davientland Memorin 2 V. Hed. S. (Bodro: Le Cappeld.) 126. S. 1870. Lo Geren Elodro B. or ch alyenante precede de la S. J. offerenge to vie d'arthur 30 J. J. offerenge to vie " And Susing Metals " Cloud Inquiry " Michigan " Book yslew ile, I have a heavy bill to met this - and I should be very m the amount of the

A. & Footo Statement - would be really a accommodation

LONDON, 15 Piccadilly, W. SPECIAL OFFER " J. a. Edisin E BERNARD QUARITCH. . No answer is required when the offer is declined. 1 Du monce j Expore des applications de l'Electricile 315. erreformenterrement approba BERNARD QUARITCH.

Gold, Silver and General Mining Interests of the United States

Narry N. Marks. Editar Colin Q. Shudirsan, General Manager

7 MURRAY STREET (ROOMS 6 & 7), NEW YORK CITY.

I.ONDON, 15 Piccadilly, W. June 30 1880. My terms are Cash. Old Customers who for mutual convenience prefer to pay quarterly can do so. Payment to be then due at once. Post Office Orders payable at Piccadilly Circus, W. Philos. Trans. Ve, as per Invice Ba Reports 187

JA	Édise	n Esg to BE		, 15 Piccadilly, W. nlo Park ITARITCH	7 July New-Jer	1880. sey
My terms are		tomers who for n	nutual convenience prefi ICE ORDERS payable a		u.	of then due at
7. 10y 184	1 Rona	olds bah Electric	rlogue of c city 4c. so	Bods on v. sewed Posta	f. t.	5. d

BERNARD QUARITCH, BOOKSELLER, CENTRAL AGENCY for the procuring of Rare Books. Mr. Quaritch's Brook consists of about 20,000 well selected Works ;-Orders for many of the better class of Standard Literature can therefore be executed at once. Book-buyers are solicited to pay regular visits to his establishment as NEW PURCHASES are added daily. LIBRARIES PURCHASED at their maximum market value for Cash. LONDON, 15 PICCADILLY, W. Musuat 3 1880 Ya Edison Ess Menlo park ug. usa. your favour of July 22 is day received, containing Druft value f189.26 forwhich I am much stiged and whey to enclose a receipt. Thepe you will not bail to let me know if there is any thing you require that does not appear is my Catalogues, as I make it my special business to go after anything no matter what it is that will arrive my diento in their various studio Thanking you for tinuana of your valuable patrony Your obstant agrant Derniro Lugir

[ENCLOSURE]

LONDON, 15 Piccadilly, Line 3 1880

the sum of Mehinder Pounds Love Shillings Very ence for Books supplied

£187-2-6.

Ranard Spitch

T. A. EDISON,

Menlo Park, N. J., Cong 41880

Ook

Barth, Publisher

Send annaten der Phytik Chemie Complete twenty one fifty farks draw through Drexel Morgan and Co here answey six words aid

The a Caison

Edison Mento Park new Jercey

Sold other Copy reserved by letter Barth

THE WESTERN DINON TELEBRAPH COMPANY

THE WESTERN

The complet set of Annalan dor Thysik a Chemic offered a year ago at M. 2150 - was sold when I got your order; it has been purchased by Mr Stuater professor of physics at the Meskyan University , Middle boarn Conn. Meanwhile I happened to make up a new set of the series edited by Poggendorff [1824 to 1870; 160 vol, 9 supplivel and the integer], excepted 3 vol only still missing . This copy is in an entraordinary state of condition : all the uncut [hards], as it shall perhaps occure no more for sale, many rol. being out of print. Fam still in search of the 3 vols yet missing after getting them I am disposed to deliver to you the set at the nate of 2000 Mark The fact scries ed by Gilbert [1799 to 1824] will be I think, of lower interest for you, because it contains chiefly translations from english and french scientific periodicals; its value is about 300 Mark but at this moment I cannot dis. pose of a complet set of it ... Reals give me notice about the wnest copy of the Pogendorff series which Find reserve for you at all events till October 150 Fam, Dear Sin, pespecifully your p. Joh And Barte

any or popo for are through with it; mJardeson my de arfir Thave borrowed acopy of Part Specifications Relating to Elec Juyan Rendich by toughts wine, make what like you need of it oreturn it to me when

AN NOSTRAND, PORTER AND BOOKSELLER, m Tabdison youly & preso this day ser core Sugmeer Karchitects durinal accuracy lac. of the British Pateup Specifications as of found were onlians The remaining by tomorrows mail

All Correspondence relating to the Busine	ess of the House s	hould be addresse	d to the Firm.		
Number-Book Department.		1, 3 & 5 BONE	STREET,		
	NG(117 1	ORK, Au	a 1/#	188	0 .
100	landaa 1	.01111,	9		2
M. Thomas A. Edis	m	no 0	001	6.1	
OW MANAGEMENT	C.E.C.	_ Moul	e Yark	JY. J.	
Bought of	D. AP	PLRT)N &	CAD.	
- Defougnit [9]			221 62		
PIIRLIS	SHERS A	ND BOOK	SELLEI	RS.	¥ .
TERMS: NET OASH, All claims for allowance a					. t
TERMS: NET UASH, An elaims for ancountee i	must be made within			oroe.	
0.0		(Cloth)	8	11	35-
5 Note. art Sour	nal	(Cloth)	1200	110	00
195961		()	!		
	7				
	_		1	<u> </u>	
		_ I			
/		.	1 /2	1	- 1
0100	Kaal	Dallo	2111/	Gaas	
10,0,0			2500	1	
6/000		0100	neger	10-	
' '	// ,	2 1 X 9	r KON	Ce	
	/ 6	1-11	1/10	211	1
•	/	/ Day	garys.	20	
		/ I	Υ.	100	
			7		
		76.		 +	
		(9)			····
:		1		F	
en en " en			. i della	·	

BERNARD QUARITCH, BOOKSELLER, CENTRAL AGENCY for the procuring of Rare Books. Mr. Quarited's Brook consists of about 20,000 well selected Works ;-Orders for many of the better class of Standard Literature can therefore be executed at once. Book-buyers are solicited to pay regular visits to his establishment GE NEW PURCHASES are added daily. LIBRARIES PURCHASED at their maximum market value for Cash. LONDON, 15 Procedurary, W. / 62 J. a. Edwar Eng Dearly, yours of 1st min is received. I give unmediate & careful attention by But as it is taken from an old calalogue, most of the works havebeen soed, In some cases horrery, I shall we able trupply other sets at ance; is of some of the periodicals Ishallhope to make up other of sundars acto shortly. Ishallduly advise, as usual, then Jamable om ake a shipment It gives me much pleasure & recent your continues order; & shape still the of much service to you, in supplying your wants. anything relative to books - when tage or small new or off - Enfish on Foreign - Ih pegar will always employ my services for. He set of the armals of haternal History is sold, but I have now a much onive extensive set as described over

do magazine of Malinas History, grobs Charlesnorth's do (contin 1837-40 Annals and Magazine of Matural Histor (a mutest continuation of all the foresunning) Byvols, 1838-79 = 99 role. Pro. (17 role, as hast cast, 120 st all ment 1829 - 18 - mor difficult a very co price fyo Willyon secure it? Honard Quartet

D. VAN NOSTRAND, MM PUBLISHER, IMPORTER AND BOOKSELLER My 20 8 Tablison by Dfr Lhave been anable to get unithing Todayon Dambo, will fet something in time beend tomorrow, I sendy in a work on Dry Rot " in Timber & if you will look in Katheer Strains you will selker a Table of sliength of american Tember of works on Protung V

will also send tome (Wushing The annual dies frey Min in Enqueers is \$101 for which we they get only the Bublication the trey however only Charge so for their vot to non members 4 Why Leunt See

T. A. EDISON, Menlo Park, N. J. ... ary 24 1880. Bable Barth Leipzig

BERNARD QUARITCH, BOOKSELLER, CENTRAL AGENCY for the procuring of Rare Books. Mr. Quaritch's STOCK consists of about 20,000 well selected Wonks ;-Orders for many of the better class of Standard Literature can therefore be executed at once. Book-buyers are solicited to pay regular visits to his establishment SE NEW PURCHASES are added daily. LIBRARIES PURCHASED at their max Y A Edison En. Dearlin as a Thaveshipped you Case as pe That soed sell of Gricoscopical Joe, & Chemic news a flow Seems you more comple show Ship vill be satisfaction Ishall begled to supply continuations bedate of any periodicals your equire, Let me have a list Thanky advised inesery Baldwin of present shippings Bul Lading & Joursey olident

				, ,201	11,21
T.A. Ediso		LONDON, 15 P. Menlo Park NARD QUAI		August w-Jersey	18 80. U.S.A.
My terms are Cash.		tual convenience prefer to pa E Ordbre payable at Picc			then due at
186.				£. st.	s. d.
	1 . F . S	4	0.0		
100	hriften de A Gesellses	mid . Thys	kal		1
	Geselles	haft zu Kon	ugsberg		
	lalu.	to 18 pt I	uch-	, 4	
		Pl		(Casa)	
	henusches O				
	Blatt.	Bd. 8to sy	(183y-66)	1 6	-
				210	
na base	T.A.E. 11				
· 11	New York	£			
Per Whe	atleys Expre				
	Baldwin ,				
1,0 %	New S				
	2800-2	our.			
				1	1 1 1

Mr. Edison, Mark Tark, Notasey. Laiping South 4 1880 By this I have the satisfaction of informing you that the set of loggenderff Annalan is new completed that the Ist of suggestings, manches a new computation and that I fortwarded it according to the amazed contificate of movine of the R. S. Caronhalt at Lajory. My for the amount of my invites I have december when these Dronch Stoph La C. as you ordered the Mills vol. are collected to proceed the collected of th that some missing plats or haves if there are, shall be furnished without any charge Fremain Sin, your very haly 4 Joh. Ambr. Barth

PURCHASED

Form. No. 138.

CONSULATE OF THE UNITED STATES OF AMERICA. AT LEIPZIG IN THE KINGDON OF SAXONY.

	I, Tried	& Strober of Leiping	lo solemnly			
	and truly declare that I	in the agent of purchaser				
	of the goods wares or m in all respects true: the goods wares and merchan to any duty regulated or any other specified quanti of all charges thereon; it have been actually allows which was actually paid invoices thereof has been a I further declare in said impoice at the Po	reclambles in the ambient browder mentioned and described; that the said it contains a two and full statement of the time who must be place that the contains a two and the place with the two in the contained, and which are subject to any and unborne rate directed by law to be estimated, or beauting the two day upon the value of the square; the directed by the contained to the c	where the of duty or yard, or of hereof and ut such as is currency to different mentioned			
	Dated at Lei	ozig, 4th day of September 1880				
	Total Amount of	Invoice Mark 2000 —				
	Mark & Number	Mr. Edison Frank Strokes An				
	4. 12.	h 2				
E.,	Contents Moster Musikry 42 of Joh Ambo Barth					
973	Contents Beeth New Year of feel Amba Bearth, To be shipped from Hambery to Me Colinson. Mande lark May Lessy 42.					
	To be surpled it.	m maning				
	10 - 16. 50430	7 A				
	Ments Tars					
		I, the undersigned U. S. Consul, do hereby certify that at I				
		on this day of September A. D. 1880 the annex				
		numbered 1973 in which are mentioned and described cortain -				
		- B				
		amounting, with the charges thereon, to the great yum of 4. 2000	<u></u>			
		was produced to me by Ctracks. Starobel				
		in person the agent of prochaser				
		of the goods, wares and merchandise therein mentioned, who thereupon de	clared, in			
		writing that it was intended to maker entry of said goods, wares and me	erchandise			
	,	at the Port of Yew york	in			
einad Con	nsular Fee: 21/2 Dollars.	the United States of America I do further certify that I am satisfied, that t	he person			
/00	ned in Tripitoute.)	making the foregoing declaration, is the person he represents himself to be;	and that			
(Sign	sed in Tripitcate.)	the actual market values or wholesale prices of the goods, wares and mercha scribed in the said invoice in the principal markets of the Country and at th	ndiso de-			
	1973	experiation are correct and true.	e time of			
	11,00	Witness my hand and seal of office at Leipzig, Saxony, the day and year	aforesaid			
10.0						
		* Frederick Na	char			
		Vice and asking Consul of the United States of				

PURCHASED.

CONSULATE

respects tenes that it of all charges theorem; that have been actually allowed the which was actually paid or is invoice thereof has been or a I facther declare that

in said invoice at the Port of

Indeed at Leipzi

Total Amount of Ir Mark & Number . / Arch hosts

Contents Beech To be shipped from to Like Elwen Acato Laste

VERLAG frirender ZEITSCHRIFTEN:

Annalen der Physik und Chemie. Ven 1700-1824 Von 1825-1870

septien von Pogge Selt 1977 len son G. 117cd h 3 Mante S^p oter 12 Hotte Preis M. 31.

BEIBLÄTTER Annalen der Physik und Chemie

Resusgegeben selt 1877 G. und B. Wiedemann

JOURNAL PRAKTISCHE CHEMIE

(van 1828-1831 u. d. Theli eumal f. techn. u. Bosn. Chemis') 10) herang, v. Erdmann, Schreige Sridel, Marshaul, Werther;

Jess folge (seit 1970) herozogegeben von H. Kolbs seit 1979 v. H. Kolbs u. E. v. Mayer Jibelleh 2 Timbs 6º In 23 Preis 36, 28,

JAHRBÜCHER PROTESTANTISCHE THEOLOGIE

brausproben von Hate, Lipsius, Pfielderer, Schrader, Trofesseen in Jone. Selt 1873. Sich 4 Hefte, 84, Preis M. 15.

Allgemeino Deutscho Strafrechtszeitung. Veter Ministung von

ingings (I—X in 4°, XI—XIII in 6°) 1991—73. (Schines) ole 31, 120, -- erreites, and 36,00.

Archiv für zeichnende Künste R. Naumann

unter Mintalang von H. Wolgel und A. Andreses 16 Johrgings mit Abblidungen, St. 1835-70, (Schloss)

Leipzig, den #

JOHANN AMBROSIUS B.

Kechnung fii So. Edison, Murls Park, Son Šera,

Annalen der Physik w. Chemic Bond 1-160

AUGUST BOLTEN, Wm. Miller's Nachflg. ABTHL. SPEDITION. SCHIFFSMAKLER. und im Auftrage des Herra usancemāss. Assecurans von Al 2000. werthe Adresse verladen, werüber Ihnen inliegend Connossement behandige. Mit Achtung ergebenst PRAUGUST BOLTEN, WILLIAM MILLER'S NACHFOLGER. Alleras Spesen-Nota Nachnahme von .. Fracht bis Hamburg . Verschiffungsspesen, Connossemente u. Porti.
Assecurans-Prämie & 24-00 - à //2 % 50. Courtage u. Commission Stempel u. Police..... 50 50 Ucbernahme.

(879) B. 1607. European Express, C. B. RICHARD & CO. PREIGHT No. 61 Broadway, 7 Admiralität Str., Custom House Business. NEW YORK. HAMBURG. General Passage Agency BANKERS BANKERS
Billiof Schange and Money Orders
all places in Europe. Hamburg Mail Stranships Sept M M Edison Sii, We beg to inform you of the arrival of hom a Barth & C. B. RICHARD & CO.,

C. B. Richard & Co., C. B. Richard & Boss, On I. No 61 Broadway, NEW YORK. E Uropean Express, FURBILLY AFETT Custom House Business.	New York, Sept 22 1880. M. Edison, Mull Cark So C. B. RICHARD & CO., No. 61 BROADWAY.
M Edison Charges on I Case M	Books ex s. s. Trisia
Freight and Charges from Hambur	
Marine Insurance, \$	12 89
Duty on value of Goods, \$ 500.	- 25% 125 00
Customhouse Foes	
Gen. Ord. Storage Cartages and Postages	Storekeeper Charges 75
Cooperage, Labor and Marking	26
Customhouse Entry Disbursement of Advanced Charges	300
Forwarding and Commission	100
	\$ 144 50
* Innalu der Myrid Chemic Baud 1-160, Egang Id 1-80 Jubilled, Algisterber 1944.20	Sec.

BERNARD QUARITCH, BOOKSELLER, CENTRAL AGENCY for the procuring of Rare Books. Mr. Quaritch's 8200K consists of about 20,000 well selected Wonks ;- Orders for many of the better class of Standard Literature can therefore be executed at once. Book-buyers are solicited to pay regular visits to his establishment as NEW PURCHASES are added daily. LIBRARIES PURCHASED at their maximum market value for Cash LONDON, 15 PROCEDULLY, W. 15 J. A. Edwarty Dearder, Sharebeen able to obtain Destlutions of German Periodicals which Lend you as per invoice inches. They are than those jour recently ordered franny catalogued & the proces Shall Soblain the completions and Continuations & date? any periodicals or att vols, you Shallhegad benderror to obtain His being asmall case & value under \$20. Ishinght it best brandby Effress to Balovin, her york; as other wise Solines

a omich larger

Number Book Department. D. APPLETON & CO., 1, 3 & 5 BOND ST., 1. a. Edwar Eg Dear hi'-

Vol. 28, Proceedings of the American Association for the Advancement of Science, is sent you to-day by mail.

Please acknowledge receipt.

Respectfully,

F. W. PUTNAM,

Perm. Sec. A. A. A. S., SALEM, MASS.



D. VAN NOSTRAND, Importer and Publisher of Scientific Books, 23 MURRAY and 27 WARREN STREETS, (up atala.)

The have Germ you er for 1 Shown Bice Com Bie Chan Hastrand



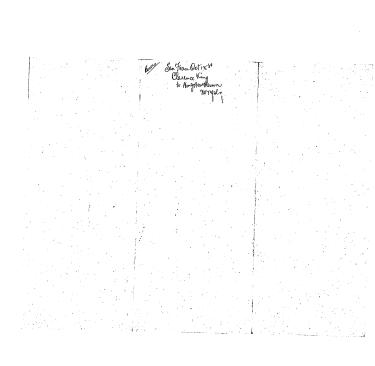




D. VAN NOSTRAND. Publisher, Importer and Bookseller, 28 Murray and 27 Warren Streets. J. abdusin msendyon tolly the 3vos of wagners ye is that you have the vo Taken, Refurding le handed meby or Kindly mention to I am abwork getting the information he desires, he wishes the list reta him in an intomplete State I will do to endeavor to finish it up

Umited States Geological OFFICE OF THE DIRECTOR,

Law Transices lat Oct. 12th, 1880. Non W. a. M. Oherson Seabright, N. J. have the honor to asknowledge your communication of sept 21th, enclosing a letter from Tho A. Edison, requesting "Geological Exploration of the 40th Farallel . I have forwarded Mr. Edison's request to the bhief of Engineers, U.S.a., (by whom the volumes are distributed) and am in hopes that he will be able to furnish them Very respectfully yours,



U. S. Coast and Geodetic Survey Office, Washington, Oct. 14..., 1850.

I. A. Edison, Erg Maulo Park New Yeary

Dearfir

By direction of the Superintenduck, at the request of Mr. E. A. Carman, Chief Click of the Department of Agriculture, a copy of ships been been fromwarded to your actives by this day's mail.

Please add nowledge receipt to

your respectfully M. M. Wines Coast blood the Survey.

U. S. COAST AND GEODETIC SURVEY OFFICE, Washington, Oct., 14, 1880.

Mr. E. a. Carman Chief Clerk, Dept. of agriculture

Washington, D.C.

To meet the request made in your letter without date -, a copy of Sigher but bear formula bear Sunding and Dredging has been formula by this day's mind to D. a. Edison, Eiz-, Mento Bank, New Versey - by direction of the Superintendent.

Yours respectfully

M. M. Mines

M. M. Mes detic Surrey.

The Gerrang Poux. The Smithsing Inmr Jabelison Defir, his come to light + I send it to by Apress , frepa

BARTINOS BITERRAY BATORINA SOLICA SOL



(3420 G. R. 1880)

Office of the Chief of Angineers,

Washington, D. C., October 28, 1880.

Mr. Thomas a. Edison Menlo Cark, N. J. The Director of the U.S. Geological Survey has referred to this Office your letter of the 20th Sept. last, addressed to Senator M. Pherson, sequesting a set of the Reports of the Survey of the 40th Parallel. In reply thereto I am directed by the Chief of Engineers to say that volumes 1, 2, 3, 4,5,6, and Geological and Sofo graphical atlas are sent to you by registered mail this date, from a few copies reserved for colleges, libraries, tc. Volume 7 has not yet been published. Very respectfully, Your obedient servant, horn to Esciet.

Major of Engineers.



46 CHAMMAN CROSS, MONTHLY STATEMENT.

J. a. Caison Eq. New York, Oct 1880

JN ACCIT WITH E. & F. N. SPON,

SULEMATING BUSINESS SHOULD BE SENT BY DRAFF OR P. O. ORDER.									
aug	27	Row	tedje :	Bam	bro				80
								The second second	
					_	,		And the last of th	
					0.				
			•						

Annual Report of the Friedworld 1800 Present 1878 CK.

4.5 Coast Parcoy . of description of Microst and optanism was on The Str. 13 Take. " By 6.0 Light USN.

SMITHSONIAN JUSTITUTION,

WASHINGTON, D. C., MV. 16 1880

Deafri, It gives us pleasure to be able to comply min your request in behalf of Ur. J. a. Edison, and the Reports he debries are sent whim by mail. Very luck yours, MyRhus

Gul Ca Rarman, Object agrimedune Dept, The state of the s

Dear's H: AND SHOWN THE SANTARY ENGINEER, TO On and after January 181 489.

Dear Soil: 9.

On and after January 18, 1885, the subscription price for THE SANTZAN ENDIRED WILL BE SOOD A year, in advance, possage paid. The size of the paper with the presence of the series of t

Your subscription to this Journal expired.

We resume you overlooked the notice sent you at that time.

Respectfully,

THE SANITARY ENGINEER.





BERNARD QUARITCH, BOOKSELLER, CENTRAL AGENCY for the procuring of Rare Books. Mr. Quaritable BYOOK consists of about 20,000 well selected Works; - Orders for many of the better class of Standard Literature can therefore be executed at once. Book-buyers are solicited to pay regular visits to his establishment as NEW PURCHASES are added daily. Lindartes funchased at their maximum market value for Cash, LONDON, 15 PICCABILLY, W. 15 of A Edwar Egy. Roardin Sharenme the pleasure arrisegoushar Share Shipped to gow Philosophical magazine" as per cinaice Although Thave duly advised hieron Baldwin Sencired uplicates Bull plading to an need; Havingan acts of the following periodicals Edinburgh Royal Society Fransactions Edinburgh RymeRhyment Joay Roccionys Glasgor Philosophical Jacq. Proceedings Mature - a set Quarterly Journal & Scre Or, shall lowain bent

THE INTERNATIONAL NEWS COMPANY, (FORMERLY THE WILLMER & ROGERS NEWS COMPANY,) (FORMERLY THE WILLMER & ROSHIEN NEWS COMPANY)

IMPOUTEDS 3 Beakprain Street, New York COMPANY)

IMPOUTEDS 30 Beakprain Street, New York CALS, AND BOOKS, Special Authorities Agents in the United Street and Counties, for the Elevated Lord News, Counties and Counties, for the Elevated Lord News, Counties and Counties, for the Elevated Lord News, Counties and Counties, Fortight Spring, Street, Stree BRANCH OFFICES: LIVERPOOL AND LONDON.

CHICAGO, ILLS. In Colson all R. M. WASHBURN. "THE PEOPLES' LIBRARY." Burlington, Sowa, Dec 20 488 0 Thos. A. Edison Egg of Deg of in present non mits a copy for that of expect you which at wine and wast amount Journe of the conserver of Jether Book. Hoping it be acceptable Trethian Horns Respect

AM Rooks Parkanad 1 + 3 lection 10 x London, 15 Piccadilly, 20 Dec 1880 I have now an opportunity of getting for you at the price affixed, the book named below, of which you desired a report recently; 1 Annalsof Electricity Magnetion + Chemistry, conducted & him Stangeon + assisted by gentlemen enum in these departments of Philosophy Vol. I-III, Fro. 1836-8 fref 1.10_ (Ishneed continue blook ont for the other volumes) Donotwantit Erce pt it is plete I remain, L. Yours obediently, BERNARD QUARITCH. I.S. Ihpergurhaveatro further orders regul, for one.

LONDON, 15 Piccadilly, W. Dec 3/1 1880.

Man Medison Corp. Menlo Burk. New Jersely, USA,
to BERNARD QUARITCH.

My terms are Cash. Old Customers valos for mutual convenience prefer to pay quarterly can do so. Payment to be then due at
once. Post Office Ordense payable at Piccadilly Circuit, W.

1880

1880 Analds Cat. as pr Invoice 1 18 May Mieros boy, Ind: 4c - 4 - 46 - 1 Sep 11 Schriften to. 5719

THE WESTERN UNION TELEGRAPH COMPANY

THE WESTERN UNION TELEGRAPH COMPANY

THE WESTERN THE

1880. Edison, T.A. - Clubs and Societies (D-80-012)

This folder contains correspondence, bills, receipts, and other documents relating to Edison's membership and activities in social clubs and professional societies. Also included are requests by clubs and societies for lectures by Edison and for exhibits of Edison's inventions.

All the documents have been filmed except for blank forms and duplicate copies of correspondence.

Syracusery up is As a Hollie & Sweet Some Commence of the for how he can be well as for the all Spices of an embassion result book T. A. Edison. Some process of the first of the and the second of the second and army by some with a life called and a side of the way of the and the said for the day the said Took Follow to the constitute shock the for the four maring in a complete or Burnet of the And The South

11 Sibridge St. duracuse. Jan. 2412, 80. Dear din, It has been suggested by a number of pretty prominent Engineers that an Association of Mechanical Engineers would be desirable. This thought is endonsed by Leavill, Holley, Thurston, Ponter, Buel, Emery, Ays. from and many others; and Mr. Bailey assures me that he thinks you would interest yourself in the matter if you could be assured that I was to be a National Association . Of the 30 on 40 who have

Johnsonse Lift Infra

been consultedous the finalten and who represent all parts of the country all express themselves as heartily in Javor of the move, and a meeting to which you are hereby invited is called at the office of the American Machinist, 96 Fullow St., New York Feb. 16th, 1880 at 10clock sharp, for the purpase of taking steps for organizing such a Society. Very Touly yours, John E. Sweet.

De Somethiet, a sit of

2 th 20 08 2 th (0 . . .

es * Transport & Starte form of the dept second.

I have some some

THE WESTERN UNION TELEGRAPH COMP READ THE NOTICE AT THE

Edison To Paleteln up all night and just gone to be thinks they had interest home for gotte

The American Society of Mechanical Engineers.

239 BROADWAY,

NEW YORK, March 15, 1880.

DEAR SIR :

A meeting, to organize THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS, will be held at 11 o'clock a. m., on Wednesday, April 7, in the Hall of the Stevens Institute, Hoboken, N. J.* You are invited to attend.

At a preliminary meeting of engineers, held in New York, on February 16, a code of Rules was unanimously recommended for the consideration of a committee on organization, to be appointed by the chairman, who was also to be a member. This committee is: HENRY R. WORKHINSTON, ECKLEY B. COXE, JACKSON BALLEY, GEN, Q. A. GILLIONER, PROF, WH. P. TROWBELDOE, M. N. FORNEY and ALEX. L. HOLLEY.

The following committee to nominate officers was appointed by the meeting: Prof. John E. Swert, E. D. Leavitt, Jr., Charles T. Porter, Henry R. Worthington and Alex. L. Holley.

These committees will report to the meeting on April 7; rules will also be adopted, and officers elected.

The chairman of the preliminary meeting was requested to call the meeting for organization.

In the Rules recommended at the preliminary meeting, It was provided that, candidates for admission as Members. Associates and Juniora, shall present to the Council brief written satureness the qualifications for admission. (See appendix). After correspondence with a large and representative number of the attendants at the preliminary meeting, the chairman believes it to be the general with that all persons, including the strendants at the preliminary meeting, who desize admission to the Society, shall present such statements to the Council to be elected April; in order that the standard of qualification which may then be adopted shall apply equally to all who me admitted.

Yours respectfully,

A. L. HOLLEY,

Chairman of the Preliminary Meeting.

Reached by ferry from Barclay Street and Christopher Street, New York.
±Anticipating a large attendance, in fast applied to Dr. Monrow, President, for the use of the large hall of the Stevens Institute, as

APPENDIX

Extracts from the rules recommended by the preliminary meeting to the Committee on Organization,

MEMBERSHIP.

- ART. 2. The Society shall consist of Members, Honorary Members, Associates and Juniors.
- ART. 3. Members and Honorary Members shall be professional Mechanical, Civil, Military and Mining Engineers and Architects.

Chun docistivof Ann Engl

- ART. 4. To be eligible as a Member, the candidate must have been in the practice of his profession for at least seven years, not merely as a skillid workman, but as qualified to design and execute engineering work, and he must have been in responsible charge of work in his branch of engineering;
- ART. 5. Honorary Members, not exceeding 25 in number, may be elected. They must be persons of acknowledged professional eminence, who have virtually retired from practice.
- ART. 6. To be eligible as an Associate, the candidate must have such a scientific or commercial connection with applied science, as will qualify him to co-operate with applied science, as will qualify him to co-operate with engineers in the advancement of professional knowledge.
- ART. 7. To be eligible as a Yunter, the candidate must have been in the practice of engineering for at least two years, or he must be a graduate of an engineering school. (The term "Junio" "applies to the professional experience, and not to the age of the candidate. Juniors may become eligible to membership the membership of the professional experience and the school of the professional experience.
- ART. 8. All Members and Associates shall be equally entitled to the privileges of membership, provided that Henorary Members who are not also Members or Associates, and Juniors, shall not be entitled to vote, nor to be Members of the Council.

FEES AND DUES.

ART. 18. The initiation fee of Members and Associates shall be \$15, and their annual dues shall be \$10 per year, pupilshe in advance at the annual meeting. Formford that persons elected at the meeting following the annual meeting shall pay \$8, and persons elected at the meeting formforghe than the annual meeting shall pay \$4, as dues for the current year. The initiation fee of Juniors shall be \$10, and their annual dues shall be \$2 per year, pupilshe financial. Any Member or Associate may become, by the payment of \$150 at any one time, a life Member or Associate, and shall not be liable thereafter to annual dues.

(The rules also provide that the annual meeting shall be held in New York, but that the two other regular meetings shall be held where and when the Council may determine.) Dear Sir: I have been requested to inform you that your application will be placed in the hands of the Council at their first meeting. Very Respectfully. ingus B. Noviedreas.

The American Society of Mechanical Angineers,

THEASURERS OFFICE, OF FAITON Street.

Now York, May 12 1860.

Mr. Thos. A. Mison, Ments Park.

To The American Society of Mechanical Engineers. Ar.

Onitiation Fee, as Life Member of 1800.

Preserved Payment, Ourgas D. Moore Trees.

Sand check

The American Society of Mechanical Engineers.

TREASURER'S OFFICE, 96 FILLTON STREET

The Council of the Society at a meeting held in New York, April 19, resolved to publish in pamphlet form as soon as possible, the names and addresses of the officers, members, associates and juniors of the Society; also the Rules as adopted by the organizing meeting, April 7, 1880. It is believed that the distribution of this pamphlet will advance the interests of the Society more than any thing else that can be done prior to the annual meeting in November. For this purpose immediate funds are necessary. When remitting for the enclosed Bill, please address the

also, your full post office address, for publication in the catalogue of the Society. The Committee also request that you will kindly forward them at the earliest date possible,(if not already forwarded)a written statement of your professional experience and various business connections, as required by the Rules of the Society.

Treasurer of the Society, giving accurate particulars of your title, firm, or occupation,

Respectfully Yours.

LYCURGUS B. MOORE.

Mymay - 1880 Lyngus BMoore and fant churciso

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

TWENTY-NINTH MEETING,

TO BE HELD AT BOSTON, MASSACHUSETTS, AUGUST, 1880.

Its conformity with the vote at the last meeting, the Twerr-resert Marrino of the Association will be led at Borros; Mass, commenting at 10 videos, a. m., on Wiendendy the 28th of August, 1890. A large and efficient Local Committee has been formed and through its several subcompilates in engaged in perfecting the local arrangements for the meeting, which will be announced by special circular as early as possible. It is only necessary to state here that the members of the committee or the state of the second of the second state of the second

The Headquarters of the Association will be at the Massachuserrs Institute of Technology, where members will register as soon as possible after arrival. The Hotel Vernous corner of Commonwealth Are, and Dartmouth St, has been selected for Hotel Headquarters.

The offices of the LOGAL COMMITTER and of the PERIAMENT SCRIETARY will be at the INSERTION OF TERMINGTON. The General Sessions will be held in HEAVISTON HALL in the assume building. The several Sections, Subsections and Committees will have their places of meeting designated on the programme for Weineaday.

The circular which will soon be issued by the Local Committee will contain full information in relation to Hotels and Boarding Houses in Boston and vicinity with which special arrangements have been made.

The Permanent Subsection of Chemistry will be continued at Boston under the chairmanship of Prof. John M. Ondwar, of Boston.

The Permanent Subsection of Microscopy will be presided over by Prof. S. A. LATTIMORE, of Rochester, and the active coöperation of microscopists is requested. Arrangements have been made for the proper care of instruments, etc.

The Permanent Subsection of Anthropology will be under the chairmanship of Prof. J. W. Powell, of Washington. For special circular and information in relation to this subsection, address Judge J. G. HENDERSON, Secretary, Winchester, III.

The attention of canomologists is directed to the annual meeting of the Extronozoorox. Cluu or the Associators, which will be held at the rooms of the Bostom Sockey of Natural History at 2 o'clock, on Tuesday, August 24th, at which all interested are invited to be present. Mr. S. H. Schonoza, of Cambridge, President, Mr. S. H. Schonoza, of Cambridge, President, Mr. S. H. Schonoza, of Cambridge, President, Mr. S. H. Schonoza, of Cambridge, Secretary of the Glub. (A special circular concerning this meeting will be sunt to all requesting the special circular concerning this meeting will be sunt to all requesting the special circular concerning this meeting will be sunt to all requesting the special circular concerning this meeting will be sunt to all requesting the special circular concerning this meeting will be sunt to all requesting the special circular concerning the special circular circular

At the Stratoga meeting the desirability of forming a new subsection in the Association, which should be devoted to Physiology and Associaty, was discussed with the special object of inducing meaning the section of the second of the property of the pilet papers before the Association and also of obtaining the active cooperation of Physiolana and Surgeons in the work of the Association. The interest taken in the proposition at Savatega was such that a persensent organization of the new subsection is expected

at the Boston meeting. It will also, probably, he found necessary to form a subsection of Geology and Physical Geography at the Boston meeting.

Several excursions will be arranged for by the Local Committee. Among others, one is planned for Salem and another down the Harbor. On Thursday, the Association will probably hold a morning session in Cambridge, after which visits will be made to the various departments and Museums of the University, followed by a reception at the Botanic Garden and the Observatory in the evening.

All communications relating to the local arrangements for the Boston meeting must be made to the Local Secretaries at Boston, while all matters relating to membership and to the presentation of papers will be attended to by the Permment Secretary.

Attention is specially requested to the following articles of the Constitution of the Association Arr. 3. Any person may become a Member of the Association upon recommendation in writing by two members or fellows, nomination by the Standing Committee, and election by a majority of the members and fellows present

in general session. (Blank forms for recommendation to membership will be faraished on application to the Permanent and Local

Secretaries, and, until the day of the meeting, they will receive the recommendations for the General Secretary; after the meeting has begun, recommendations must be given to the General Secretary.) ART. 4. Fellows shall be nominated by the Standing Committee from such of the members as are professionally

engaged in science, or have by their labors aided in advancing science. The election of fellows shall be by ballot and a majority vote of the members and fellows present in general session.

Agr. 5. Any person paying to the Association the sum of one thousand dollars shall be classed as a Patron, and shall be entitled to all the privileges of a member and to all its publications.

Arr. 7. The name of any member or fellow two years in arrears for annual dues shall be erased from the list of the Association, provided that two notices of indebtedness, at an interval of at least three months, shall have been given; and no such person shall be restored until he has paid his arrearages or his been redicated.

Arr. 33. The admission ice for members shall be five dollars in addition to the annual assessment. On the election of any member as a fellow an additional fee of two dollars shall be publ. Arr. 31. The annual assessment for members and fellows shall be three dollars,

Any. St. Any member or fellow who shall pay the sum of sixty dollars to the Association, at any one time, shall

become a Life Member, and as such shall be exempt from all further assessments, and shall be entitled to the Proeccilings of the Association. All money thus received shall be invested as a permanent fund, the income of which shall be used only to assist in original research, unless otherwise directed by manimous vote of the Standing Com-

Aur. 36. All admission fees and assessments must be paid to the Permanent Secretary, who shall give proper receipts for the same

ART. 27. All members and fellows must forward to the Permanent Secretary, as early as possible, and when practicable before the convening of the Association, full titles of all the papers which they propose to present during the meeting, with a statement of the time that each will occupy in delivery, and also such abstracts of their contents as will give a general idea of their nature; and no title shall be referred by the Standing Committee to the Sectional Committee until an abstract of the paper or the paper itself has been received.

(Blank forms for giving the titles and abstracts of papers will be furnished by the Permanent Secretary on application. The Standing Committee particularly request, in order to facilitate the arrangement of the programme, that the titles and abstracts should be forwarded so as to reach the Permanent Secretary before Angust plats. At the Saratoga meeting the Permanent Secretary was instructed not to sater, on the list of papers to be presented, any titles of papers until an abstract of the paper, or the paper itself, was received.)

Notice of errors in the printed list of Members of the Association, of change of address, and information respecting the decease of Members, should be sent to the Permaneut Secretary in order that due notice may be taken of the same in the next volume of "Proceedings." It is particularly requested that the Permanent Secretary be notified at once of any errors in the names and addresses that will be given in the list in the Saratoga volume, as a revised edition of the list will be printed for circulation at the Boston meeting.

The Saratoga volume (vol. 28) will soon be distributed by mail to every member who has paid the assessment for the Saratoga meeting.

The volumes of the Proceedings of the Association (28 in number) can be obtained from the Permanent Secretary, at the price of \$1.50 a volume; or any member wishing for ten or more volumes, in order to complete a set, may obtain them at \$1.00 a volume. The volumes may be had bound in cloth for the extra price of 50 ets. each, or in one-half Turkey morocco for the extra price of \$1.00 each. Uniform cloth covers for the volumes will be ned by mail at 30 cts. each, or by express or at the meetings for 25 cts. each. Copies of Volumes 2 and 26 will be received in exchange for other volumes or will be purchased at \$1.00 cach.

The Memoir on Fessil Butterflies, by Mr. S. H. Scadder, published by the donation of Mrs. Elizabeth Thor 410, 1875, will be furnished at \$2.00 a copy. The Transactions of the Association of Geologists and Naturalists, 1 vol., 8vo., 1843, bound in cloth, can be obtained at \$5.00 a copy.

It will save much time and confusion at the meeting if members will send their assessments in adeance to the Permanent Secretary, in return for which a Member's ticket, bearing a receipt for the Boston meeting, will be forwarded. Members not intending to be present at Boston are particularly requested to send their assessment in advance, and to those who specially request the same a copy of the Boston Daily Programme will be mailed.

The address of the Permanent Secretary will be Salem, Mass., until August 1st; after that time. and until the meeting has adjourned, his office will be at the Massachuserts Institute of Tech-NOLOGY, Boston, Mass.

SALEM, Mass., June 15, 1880.

Permanent Secretary.

OFFICERS OF THE BOSTON MEETING.

President,-Lewis H. Mongan, of Rochester, N. Y. Predicted,—Laws II. Monoax, of Rochester, N. Y.

Free Freelind, Section A.—Assure II. Lat., of Washington, D. G.

Free Freelind, Section A.—Assure II. Lat., of Washington, D. G.

Chairman of Permanent Subsection of Chemistry.—Intex M. Omwarz, of Boston, Mass.

Chairman of Permanent Subsection of Memospay.—S. A. Universion, of Permanent Subsection of Memospay.—I. W. PowerLat., of Washington, D. C.

Chairman of Permanent Subsection of Authorophysics.—I. W. PowerLat., of Washington, D. C.

Permanent Securious Conference Subsection of Memospay.—I. W. PowerLat., of Washington, D. C.

Permanent Securious Conference Subsection of Memospay.

Permanent Secretary.— F. W. Putsala, of Cambridge, Mass. General Secretary.— Join K. Rees, of St. Louis, Mo. Secretary of Section 4.— Henry B. Nasos, of Troy, N. Y. Secretary of Section B.—C. V. Riery, of St. Louis, Mo. Secretary of Subsection of Chemistry.— Chames B. Muxior, of Annapolis, Md.

Secretary of Subsection of Microscopy.—A. B. HENDER, of Additions, M. Schwicz, of Microscopy.—A. B. HENDER, Tannion, Mass. Secretary of Subsection of Microscopy.—J. G. HENDERSON, of Winchester, Ill. Treasurer,—WILLIAM S. VAUX, of Philadelphia, Pa.

STANDING COMMITTEE.

Paul Pouldests.— Bicazani V Pauses, of Cambridge; Jasus D. Dans, of New Throng Jases Malla, of Allawy; Streutze Alexanson, of Vibrector, fana Chao Chao, Chaoling Carlo Carlo, and Chaoling E. A. P. Harman, of New York; J. A. Gouno of Boston; T. Stream Hurr, of Now York; J. A. Gouno of Boston; T. Stream Hurr, of Cambridge Joseph Carlo C

and B, and Treasurer of the Meeting. Officers of the Preceding Meeting.—George F. Barkeh, of Philadelphia; S. P. Langley, of Alle-phony; J. W. Powell, of Washington; H. Carrington, Bolton, of Hartford; W. H. Dall, of Washington.

From the Association at large.—Six Fellows to be elected on the first day of the meeting.

SPECIAL NOTICE TO THE MEMBERS OF THE STANDING COMMITTEE. The Constitution requires that the Standing Committee shall meet on the day preceding each Annual meeting of the Association and arrange the programme for the first day of the session. There will therefore be a meeting of the Standing Committee at the Institute or Technology, Boston, on Tresday, August 24th, at 11 A. M., at which it is expected that every member of the Committee will be present, if possible.

By order of the President a Special Meeting of such members of the Standing Committee as can conveniently attend is hereby called at the Institute of Trousology, Boston, on August 9th, at 11 o'clock

F. W. PUTNAM, Perm. Sec'y.

OFFICERS OF THE

LOCAL COMMITTEE

FOR THE BOSTON MEETING.

PROF. WILLIAM B. ROGERS, Chairman. Mr. Charles W. Scudder, Treasurer.

MR. SAMUEL H. SCUDDER,
MR. EDWARD BURGESS,

Secretaries.

Address Natural History
Society, Boston, Mass.

On Reception.

Mayor F. O. PRINCE, Chairman; and Mr. NATHAN APPLETON, Secretary

On Flagues.

Hon. John Cummings, Chairman; and Mr. Samuel Wells, Secretary.

On Railroads.

Gen. A. P. Rockwell, Chairman; and Dr. J. R. Chadwick, Secretary.

On Hotels and Lodgings.

Gen. Francis A. Osborn, Chairman; and Ms. E. T. Bouvé, Secretary.

On Rooms for Meetings.

Prof. J. M. Ondway, Chairman; and Prof. R. H. Richards, Secretary.

On Mails, Telegraph, and Express.

Prof. C. R. Choss, Chairman; and Dr. Clanence J. Blake, Secretary.

On Excursions.

Mn. Edward Atkinson, Chairman; and Mr. Hamilton A. Hill, Secretary.

Cambridge Committee.

Mr. Alexander Agassiz, Chairman; and Prof. E. C. Pickening, Secretary.

Solem Committee.

Dr. Henny Wheatland, Chairman; and Mr. Richard C. Manning, Secretary,

The above, with the PERMANENT SECRETARY of the Association, form the Executive Committee of the Local Committee, which consists of over three hundred other gentlemen and ladies.

Sime

Singular Association for the Addancement of Science.

OFFICE OF THE PERMANENT SECRETARY.

The Addance of the American Permanent is an investigation of the American Permanent in the Control of the American Permanent in the Control of the Control o

1880. Edison, T.A. - Creditors (D-80-013) [not filmed]

This folder contains correspondence relating to unpaid bills.

1880. Edison, T.A. - Employment (D-80-014)

This folder contains correspondence from or about employees and prospective employees.

All letters that contain a significant response by Edison or that are from individuals associated with Edison have been filmed, as well as correspondence from individuals who were subsequently employed by Edison. Approximately one-third of the documents have been filmed.

interview if you wish it . In case you should wish to Employ [LIMITED.] one, I should have to give my Duxbury Station, Jan 3 present suployers due notico. Jours Truly, Dear Sir. Tho. a. Edison Esq. I wish to get suployment I Monlo Park. in Soms electrical works, If you howt a vacancy in four laboratory I chould Can gueyou a pacition like to fill it. I am at present in the angles american Tel Co. Dury bury I think in less than Go days at a better as mechanician, have been here 10-2 Oalary will nalify you Jeans. I have a practical Knowledge of Electricity, Testing ste, as well as the principle Elistrical instruments. Save 30 days alcoding settire charge of the working of this can get you the paulin station. am of an invention turn of mind . My improvements in cable inst of an Eliebric Light have been in use here for 5 fears Besent Salary \$ 1200 per annum Married Can come on for

May Willar 1880.

May Willar 1880.

Can we have the man you and when Claring.

Astract form the Kartmer Times. that you had in your employ a seeman Mafo-Blown, from the works where the Gersela witho an made, Demeluos Wioevice to ofen expenthat proper-Sham had 15 years booteal befollower in Glass Blommy and elf to a few of each Americand in the layest blablishment in block manufacturing Gament by Blow Pepel. for them index Pholosophe at puffer and have also made a large ound of Geissler futos,

Being out of burness at present
San open to an engagement
plented your at any lime regain
my persone in the manufacture of
your damp etc. Denness to please
to hear form your pitch by letter or
if you so desire will come on form
our interview.
Very Respectfully
1803 Hodger
1313 Macher Shien

Machinery and Supplies educalin son practice, bun a Ralesman eversin I became acquaintes which was when you well over Goulto DA Does not suit fing families Realth, and therefore I want

to go kast agam, Address.
145 Shiffield 10. 10. Dea Virgi a fin Jan fam of the John and De riply under vay - Juch day

of My Jeby 1,50 Was Hulliam Caro Haber 12,50 (Oper Harry allow)

New York, Feb. 11# 1880.

Mr. Thos. A. Edison,
Mento Park, N. J.

Brandin,

Jam a Civil

Briginess by iducation of profisaron of am discrove of obtaining a position in four business or with some one of the
concerns in which you are
interested. I was for some time
with Mr. Hamilton C. Towle, Civil

or Mry Engineer of Patint Expert.

I went to Europe for him of remained there a year attending
to his foreign patint business,
or making contracts, or introducing
patints. I travelled in England,

Germany, France, Switzerland Belgium & Holland. I graduated at the Rensselaer Polytich. nic Institute as a Civil Engineer & have in consignence a thorough theoretical knowledge of electricity & machinery. I also have a practical knowledge of both by experience. I am a fair telegraph operator & understand the irection of freeza management of telegraph lines, as I have done both. I am a good draughternan in every particular. I am now with Mr. Samuel Hay, Michanical Engineer Cor. Broadway & John St. - this city. I remain Mr. Soden who is about to sail Respectfully yours for Europe for you is acquainted William Mr. Allaire with friends of mine; John Ott, machinist, now with you was 358 N. 32 0 St. with Mr. Towle while I was & will

probably remember me; Mr. Charles Cheever is also well acquainted with those who know me in a business or private life one of whom is Mr. John B. Benton 30 Cort. landt St., Civ. & Michan. Eng. I can give you any amount of reference as to character or ability: I will only mention R. G. Eunson, C. E. 196 B'way, * Mr. J. R. Smith Vice Brest Star Fire Ins. Co. 141 B'way, & Missers Haseltine, Lake & Co. featint attorneys & Southampton Blage, London, E.C. England. Trusting that in case you have no vacancy you will put this application on file

() [LIMITED.] Qualury Station, Feb 13th four requested one to drop for a line today, to remind for of my application for a forestow, Der ony letter of 3th Ult If for still have Same position in view, I should, at four convenience, litte to see four personnelly about J. a. Edison Soft Manlo Park.

Fordham, New York City. Ularch 28, 1883. It. They A Edwin,

They dear originate to inquire if you have any tracament in which you could make the of my services - I am, as I believe In are aware a graduate of the Steven Institute and have until strevens protect and have with letty been a Fellow of the Johns Hopkins University - I a Fence of meet of any mak help as Fence of ford you I would be glad of an opportunity to Frate my qualifica-tion more in detail better for-moly or by letter - I mile my say Jam function with telegraphic

up Fortham Myllian 14,850 World rayor of measurement of measurement of manufaction of fair Moorae of section of mode in reply will oblige Very truly your - Pormi Syres. The The A. Edwing. My dear size -If you have any becomes in elitera of me could nearly starte store of my someise I am in I hillion The as grave a gradupte of the I the him a visition of the John who placed and the following the state of the following and the following of the following the Sopportunity to state my function smally or by letter - I will only some

New York Mch. 26th 1880.

Prof. Thre. A. Edison, mento Park, R. J. Dear sir,

I made application to you for employ ment by a letter which you would place my explication on file. I beg to submit the encioned hot with its indoversely consider on file I shall be much obliged to you will also findly consider or place on file I shall be much obliged to you.

Respectfully yours, William the Allaire

358 Tr. 32 - St.

DODGE, POTTER & CO.

A PINE STREET

Stenographic Letter of Partner-

NEW YORK, March 25,880

Denr Sir,

The lucrer, mothers on Allaine, is decision of applying for a position in connection with the Edison Electric Lights.

I believe him to be a soming man of strict integrity and considerable ability.

He preced through the Rensellair Poly--liehmic Institute, at Froy, My, where he graduated so a Civil Engineer.

His connections are first class.

Could you kindly give him a note to me Edicon, which would no doubt be of great service to him, in his proposed plans - and oblige,

Goo: Breacott Eng (Mar Coody)

Respectfully referred · To Prof. Thos. A. Edison.

I know gree. Hodge, who with this moto, and consider

him my good authority in a master of the kind

Noron Green

In Celtiony Menlo Paik New Loreay Dear ly Mr Lohnson handed me your cable saying of Insul can translate hence pendhima to which I was unfacturately compeced to uply No requestion you will have understood flow this that I cannot Kanslato French, which I very much regret. I am easy that you chance have had the house of cashing without any went

manufacturers, Nextford him Ens The sharp elight madening the last the best supported the start of the supported the super super the super s in any Electric works but

have been dabbling in itzer while knisly answer during all my phare time for years, and loge the & you think I would be ist to show the electric any us to you my ight in my part of Dervices will be at Your Guntry - I have been disposal immediately of back in New York about Wing wonths and am Trusting & employed by Proce Me Printing Areas, makers - buf would profes that hot entouching on your valuable time lighter work - & can cupfly too much You with first class deferences Mich Now will would for my ability Hespectability vix necessary & can send i the other side for Justice Credentials - This we Then Sort City Hach you through the Courtey of Mer Venkins of Dreser Morgan & Co. and should four Think it worth

The Edisan Telephane Campuny of London Limitals Case take Care that nothing Concerning Enoull's application for a position with you reache also bear in mind that are my Correspondence & me while there - is Kept Confidential

Tondon Est a mo

J.a. Edison Erg It will be nine years this fall when I began to rebuilt the huiver Private Line Printers for the Gold 4-Rock Telegraph company - I have Dince stuck to them like glue and with the new Company now on the verge of going down with the printers it is now only a matter of a few months and the last of there will be taken in + I homes put in there place, The phones do not require the same class of attention is the printer, hence Horse car conductors will make pretty good inspector. My Mornolisty of Electricity - Chemistry of Civil Engineering ought to brung me in Something better chave the Telephone impectorship which is now in view for me carnetly request that you will give me a chance at something where my Knowledge in the above will be brought to a better advantage try met again for another zight frantes ours lab. Wagner

Car of Who Mangel arm Brood Hatel ilor. Mungel 8, 8th Roc Dear 6,5 W. Bason The ord more counting oncemen hospitalist if you wish to come 236 East 104 th Street Should the to dec you addoon you can have a gab for as passible 30 d an hour if you wish, Otherwise please let makerow at ance allatot me Know in case That you are not endined to Tricky yours Truly yours Hacitain Cen 27R July 9 1810 1126.80

Thom Dread, Morgan Ho. To M. Inffer
New York July 29 1880

The bearer of this note dances Helloway him, is a
the gentleman Sopore to you about, He is a
they good nee chance and anything you can
after him were greatly office
your wey take
Hellowing

B. Elslich Esq. 18 Coles street Jersey City Dear Gu The man I have engagod notion offer application was record. has not come and is that place parane If you are willing To Take it please Dame an Monday 9. a. 8.

B. Ehrlich (July 1880)

18 Coles street

I answer to get you to the Will have no room pust now but may fine a drawer for you, in a short time or will to yours.

Touly yours

EXECUTIVE OFFICES Albemarle Gertilizer Dar Stri My dear Edrion; I wrote Crosby a letter to Denver last week giving him a piece of mind for leaving your laboratory and tellin him it Embarraised me as it was I who got him in your supply. I told him if he remained There I arriedness have any thin more todo with him but if he would return I would give him a position in the Festilize Co. as agent. He replied promptly disavoring Strongly any desire to reacal any secrets he might have learned in the laborating and wound up by saying he would at once Start for neuple. Yesterday be arrived here. Lauson Lowener remained Sid you got the sample & alle maile" I send you the other day? What do you think of it Hen is the motor Co. progressing &

andrew terhine Rahway NJ. Chas . W. Mourdock. Woodbridge NJ I you want to all engaged as an aprentice in our

Dear Engr should be pleased to Engage With you. I and well Ported as Pation Making and Machine Work Can Work either Wood or Metalo, could give you entire the tige extended to me. Can Equa of once - if wanted. Manship by return mail and oblige: HW Oliver

Are age not in need of thelp now but will file this aft. If write him if we want a man

Millan Brade No 9. Orange Place Newasta V.J. We are wanting one more Madeinist if you wish to Take The place please come immediately if not let me Seo. F. Mayer Ihow mithaut Dalay P. C. Tahway N. S. Aug 3/(1200) Wugher Johnson Dew. J. Mours of Q. 19th rood I'm andw would say Emest aring me an inthotoms iles . Edison sandit host pay Two pass Roales & matances Cross willied he was Fit the Bow Do Louis creeferic mostil. De Parise Dan To Ruse. To expersion more Thorangh

Albert Mittehel 14 Ave a. N.Y. Will pay prim \$ 15-00 week to start on and prooves To be watth in If he is willing come and T.Q. & J. A. Edison big. there by chonday the

Mr. Carma Ebrete Chas. Racting a secto that his Sorvices are mot long or regularing. Chard send it to him in Halist Envelope Tomorrow

Nother ben At. 14. 14 18 18 1910. any sense of be now dan bear and disharing the cray things are man-maged in the line I wonth whill pit-me in a paculiar petition of fel whiged to most thing littles. Thent the mest age a muscle had been my avistant for newly half a year worked to howknow dawn and break my med in House year. That I had to hear that gowwere a dem side better off I mere not have If work in my line I la net mant to be loved by people that understand less then your fair of of think year sufficient forward that I was an stand on his varyoueld that I was any stand on find an every first thought the same of the you know affiltered of the care tester when fixed up by the bags: I have no doubt they did The best they rould but a whole week was that Time lost The los of money Did not aurant to any thing but the delay a

day Mr. Batch and I had a disceyes

ment from a dance not worth to

be mentioned which near so far

whole weeks delay! Whist I worked for was proghess I'd did not walls by progress the last time because I liked the parties It had to deal with, not because I liked the treat_ ment of received for the services I have rendered, but be rawed sympathized with you, because I liked the great problem we nears working an. But nowthing havegane too far Far a few days I take a vacation toge an my uncle's from which & Find not see yet. Then I came back to hear whether you agree with the Things described. In conclusion I say that I do not want brigher ragges and that I Do not want to interfer Remaining your obed cut

Ludwig H. Bohn

EK Bocken Ow do

Vetuebus At. 2014/880 To M. Thos Fo. Evisan Do. D. Decernio

I havely informer you shart am having abula Bart am having abula Bart and so was mad by how about to you already, I his like the breakment I necessed for the sorvers of bart and

am convented that same of your assistants and I sould not agree for any length of time.

afree for any longthy three. I therfor girl ago my present pour have. Enclosed you mill also fund if also fund if also fund if the sound if

minte already last inch. Tamism very respectfulty your Lestwight Bokm

Sor D B President At. Ott 20. 70 you to write one for me at Mo This is to Certif by to morrow evening and should very much like to have it then. Mor. Fr fuck Mr. From in carry respective He leaves The possition his an accord T. a. Edin

OSCAR BOOR
Gissnechniker
LICHTENHAIN hel Oberweissbae

Lichtenhain bei Oberweissbach, den IJ Monniher 1850.

farm Clibbon sir New york

Da Thu genary clivesse mic un belann ist, whate mic and hissen high, buch he would have, and his hand, much Them sate blass has some emperation.

The nac habe with explain blass em deregreties. Had buch would with mich, vermelle aber, lass the from some the aber, lass the we for the second with mich, vermelle aber, lass the we for the second with the second with the second we had the second with the second with the second we had the second with the second with the second we will be second with the second

Langer hiet in unomider Elestrafter Audill, land geschalle, door ist hie field blaker substitut field, bow ist hie field blaker substitut field, for ist substitut field, for funden Iname, milion kehriben familien filmen it after filmen field filmen filme

Einige Takve "Tei Eleisela m Balm zaabaidld ki. sik m allow Elesevien en zenvihl, voos his eleckeschen z veisson eige fleihen Elepteinemen veferbaliek ist, ehmoo m Tremmenden, Tavemelon elle zholft Joke en Beschaft selcher Jabeilalion Vuren muni Gidleng

grand and a second oriented the

lefrichigen im Samen. Sellen Sie When mich in There Tabrith andellen kannen Errollen for tille Sie, mie Thu Minzanger ou sellen f g ransmuum. Dii gymaistiym Nebeceni kommen kinnk lalegzs/bi Thong einsteler

Thur pef ungehinden Nathrichten und zegenschen?

[ATTACHMENT]

Therelow by Mr Fred & Weiss cho 316 E 84 St My City-Danie Cunteral forthe

iffin Lell This man that we use a great many glastly but we cannox promise him anothing; & Our experience with previous Geiseler glassblower w anything but patisfactor for manufacturing work. We pin it a quat deal easin to work than try to get experimental manufacturing work. or about this

Fas the present me and Lully suplyed Sent will Heep you seed an fice There may be a man ask your capacity wanted Chileroher J. To Vail Unitron T. P. Seelin Ofan Can have as I think a Soutable Joh now Come une dealety & Dec 27th

Smit and Rroagen 120 Pedway My Martin, Van Duren ask about his abdulg and Character and of he Martin Van Buren Dec & K, 1800 Care of J. B Smith & Prodger 10120 Browy Ny We are about to engage in a time of any of Comme of gon to make to take the position come and here and see Mr Kruedi 9.4.8 OK K Lles o.

(Dec. 1880) Muses. Balancia & Willen Can you recommend as a first de Enginee one suppose is acostoned To fire with Just coal. The carly answer will ablige your 125 36.11 T. a. Edison Goo. Winkler No 104 East 1 m street Newsforth Those is an opening in our Shop now if you wish to Take The chance came incremediately of most please let we throw by returne T. a. E per Mruen Ded (1880)

T. A. EDISON. nor Edson nou Huddan in considerate extreme to you and as for as Dean lace the work is for hunself outfood week for him go armani. Please fay Hedden off I have nothing for him to do.

1880. Edison, T.A. - Family (D-80-015)

This folder contains correspondence and other documents by and about Edison's family. Related material can be found in D-80-040 (Railroad - Port Huron Railway Company).

All the documents have been filmed.

No repotion No answer Soma Jaw 15 4/2000 I. a. Edia Esz-Grar Cousin al I have a few leasure moments and have fresh here reacting about your great invention thought would write and see of you cause not give me improgramment yourough to pay my board and give me a chaine to Midy Evenings and of when limes when at home as I du poor and course dent are of my time as I would like to about ou year ago I immitted a gase machine for manufacturing gass and took in a partier who agreed to formed the money to get it politice. and who get policited in his own recome card there me out and left the country have not have from him since P.S. Mr Edison J. S. I wire chalace my selstin to your which is some whom distant this is this for my disting is your first Cousings, which makes me your server Cousin my disting disting name was Henry Edisin who now lives in Carille. I servender seeing your once three or four your 2 go & was blusting in P.M. Colismo Store at Fout Total michigan you do not remember is professy, was some timb egg was very sony when I havel little Charles death for he was a smart little

The time is tenting with showing genering helder have to close of acts you for a hope me office you from you for my age is 22 years over I know I can go so grove sety portion wire come shown But ships Oddur

Mence Paoph 1-24.82

Secured Joan Bacana
Chers to amount of three

hundred and wang five doctors

Vamual Edward

you may show of planning gaw 23" 1880 This letter to al , suppose you got of ger chan ent you a few When you gin him the - you Think I that you a luxurance Reports WP3 ew Store it would was will pay chous Port finen faulde filiee. on Rusty Thony have Ter Gratest ingament June out us as you Thouse least I send you to day the mouthly. Statements for the quantes of November and December of think They look Cover for these hand toines and we paid the Danborn Estato \$ 100000 in Junday last so now we own Them \$ 4000clue in two year from much July and if we have good linet we com fruy the aut in much less times and lean the road is Aplanded Condition I want you to see Uf when he is not very buisey and hand This reports to kin

Fort planeni Jour 23th 1880 Father I suppose you got The letter I reach you a few days ago dout you think that 2 lend better get you a lixemones Valery on The new Nove it would and Cast and we will say whout \$ 800.00 you Know Rusty then, have one Protection in Gratist against fine but de as you Thuise local-I send you to day the Himsely. It at the for the months of November and December of think hay look Could for These hand Toises and we "paid the Dauborn Estato \$ 1000 on Justy lust so now we own Than \$ 4000dece in two years from mugh July and if we have good bust we con fray the aut in much less Times and lean the road in Aplended Condition I want you to see Uf when he is not very buising aid hand Thes orforts to him

and have him pead them gor now It legios to last as though we sor if I could send him on Iwald Through my list as high as the manne Gut no mion at present I suffour you are having a good Time of hope Do at least necessition but to The boys and posterior to high Buch There is cooth conting about to I bige a good Coge Street car the

ing Branch 12th /80 May letter of inquiry bor flam it is the did-Explans it self so I did not throwning who I was adversing I have this Evening adressed a letter to Words I Edison hoping to find other friends and relation, in Conado and Else where My Name before mariage saughten of your am Thannie Ellith my Huden's is a Confunt by brady but 28 miles from Chicago on forriver on the N.W. R.P.

hoping for your propriety that you any successfully light up the words with your about that you that you thought for which fire the strength of annual this letters to some the strength of so. it would give the year of seein the year of seein the delines of the others.

Mers A. G. Abbett -Lany M. Glenny Co Abise Aline Ptillwell
194 Heigh GINewcick

The Bring Dotter auth you
when room come Atte oftenon

Lent-)

Lent-

Darling I can same to Limbs I can same to Limbs War but! I can short of money Back & can you renave me then as the fitting circle and on it you cannot do that where can I get a Collect Cashed Deschery beign is at the affirm you some

an take a Beheck

hrs NEdin Reserve Electric poilron nd Ede

cine to write you and have you and have you gon Seuralgia medicum Geo is here and he says if you down do you our you Know he is Blind as a box Out he suffus arfuly with pain in the head I wish you would live Road is doing a good bursuff will send Reports about 5th

Mrs Eason will not be until wednesday or Recturday requests to b, I harty Dollar Saturday please send in that dollars by Bearer; I gave eighteen dollars of the fifty to the En please tile Fred to call here about 12.30 for a parcel to lake to Theredo Timo Sincerel

THE WESTERN WINDS TELEGRAPH COMPANY.

THE WESTERN WINDS TELEGRAPH COMP

1880. Edison, T.A. - Insurance (D-80-016)

Approximately one-third of the documents have been filmed. Bills, receipts, and routine correspondence have not been filmed.

MUTUAL BENEFIT LIFE INSURANCE CO., Odisen! ade Ruch as newlight. requently an been through the mill . lettle or no Compe back and not count are le how Istruggled in Hewar backe Sh with and ampleased to in altho Dwork as hard outlook is certains brighter would Fer life. Bay 700,00 of the greatest prosperity

Assets over Eighty-Eight Millions.

The Mutual Life Insurance Co. of New York.

Newark, N. & July 24th

Mr Carman Ex. Neula Park. A. J.

Docaster

The and when

Eding fremain, is \$234. To At the pagaret

made in Dec+ lest a dividued of \$95.00

his ward in reduction of the francision;

This time the fremen is the fire out

193440

Your has Sullagrand

Assots over Eighty-Eight Millons.

The Maturi Rile Insurance Ca. at Note York.

P. S. WINSTON, President.

No. 749 Broad Street.

Chewark, A of July 30 th.

1880

It lidean by

Moor faver of the 28th

put, general, chopen for \$234 the Same annual

formen a gampain, the 163. 175 to at hours, for

which faver accept my thanks. The mesen there is

an dividual reduction of the Bayours, in that

the dividual in dictance of the accession, 4th

policy in December of each year and a you have change and the out for the Boquest of the Bect forward, the Jenne former has to be Bara in

fuer.

Sour hing Go Bhaymend Gal Apr.

1880. Edison, T.A. - Payroll Receipts (D-80-017) [not filmed]

This folder contains payroll receipts for Menlo Park laboratory employees. The Edison National Historic Site also holds an extensive collection of employee time sheets for the period 1873–1931. The time sheets for 1878 have been filled as a representative sample (see Thomas A. Edison Papers, Microfilm Edition, Part J. 17621–2870.

1880. Edison, T.A. - Unsolicited Inquiries (D-80-018) [not filmed]

This folder contains unsolicited correspondence requesting agencies for Edison's inventions, inquiring about the purchase or cost of his inventions, or asking for other information about his inventions. Approximately half of this correspondence was sent to Edison in January, following the first successful demonstrations of his electric light system, to request agencies for the light. There is also correspondence regarding offers of land for the Edison Electric Lamp Company factory.

1880. Edison, T.A. - Visitors (D-80-019) [not filmed]

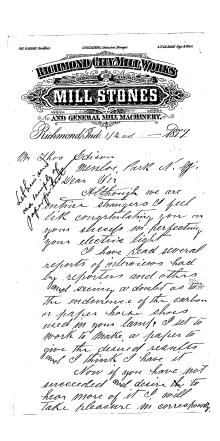
This folder contains routine letters of introduction and requests to visit Edison. Letters that received a significant response by Edison, or that were written by individuals associated with Edison, are filled in their appropriate subject folders.

1880. Electric Light - General (D-80-020)

This folder contains correspondence and other documents relating to the commercial introduction of the electric light and to technical aspects of electric lighting and power, such as the design of lamps and generators and the materials to be used as filaments. Some of the correspondence deals with the lighting plant for Henry Villare's steamship, Columbia, and with the search for cane to be used as a lamp filament. Related material about the application of electric power to mining can be found in D-80-032 (Mining - General).

All the documents have been filmed except for duplicate copies of selected documents and bills relating to the death of John R. Segredor, whom Edison sent to Cuba to search for filament materials.

DEPARTMENT OF PUBLIC WORKS, have I am some dat diffident Joing to Monto Port Asa publico Official however, I doone to do no and will therefore accept yo Kind invitation and if fromble, will visit you to morrow afternoon Sortenday), but the assurance that twill not come you very great



LTLEMON: Sept & Dent

Richmond Ind with you in refference to

For my own satisfaction of am making a sample

of my paper and I shall gow it a servere trial of well say right here that I am not a particle excited

over the matter dont exper

To make any money out of it (as I have been in the lattent Office too often already to ever expect to make anyte

out of such things but if amounts to any thing and y shall be to wow advantage

wheather to mine or , I remain Most Bespect

It is reported that you obtain in your Lamp globs a vacuum of 1000.000 of an atmosphere, if this vacuum was broken with pure nitrogen gas and the globe exhaused to tooo ... again, you would have sowing to the diffusion energy of each gas oxygon nativally existing in the air Would not this method be better Than burning the buygen out by Phosphorus! which leaves a dan -

Lang Stationery and Papen Co., FULTON STREET. New York Jarry 2nd 1888 7. A. Eddison While reading in this mornings account of you new Electric Camp, and that you obtained you calor from fature it occurred to me that a paper having a very strong fibre, and al - solutily fru from any substance oxcept the regetable fibre would be of assistance to you, I therefor order Some pieces of the heavish might I have at hand, at from the margin of the sant so as to fire from the Chancel in the ruling inthe of you disin I can send you some Columbia College Days this is the my paper he ever Daw absolutely of pure fibre, and so mel washed as to be chimically of a negative characte von Roph Lours Newton S. Otis

mento Park n. Respected Sir elf whow you at the time, but as I have atten-- twily read the numerous and various detailed account that have from time to time appeared in the news Paper Pass, and am universely waiting the final step to the taken that will erown your indefatigable effolts with under they success to fur-mich to the world a cheaper

and better light than contind that if you will that now in general use. I beg leave at this june. tone to make a suggestion have manufactured a Bristol Board with the himset of Radin you that puhaps you may be already familiar with you he probably not will surely discorer a more herfect and substantial Carbonized shoe. aware that in the manufac. I mile this thinking that - true of Bristol Board they your maid has been so are not in the habit of entirely ingrossed with other using Kaoline, which is as things it may have excepted really as indistructable as you thoughts. askeltos, but they use an Opaque Clay, fond in consid of you have a league more I would very much like to hear from : erable quantities in your state. and will readily perceive that it is not ab good as Raolin, which is altogether used in the manufactue of Alfred Taylor, the finer grades of paper and in my opinion it is the clay that gives your Carlon shoe its tonacity, and I Thank him Asay that what are after a la Bristal ba with no Kaolin or other water than

Jan. 3, 1820 .. No 204 6. 11 th Ju J. A. Rais ... Junea Park, . I make them wishers me amonging you greatly; hand briefin at alk if it will be commind for me to wisit you down day this much in reference to the husings how of your discours, Satisfied myples than-electric light will man com in competition will gas in Small as well as in large soms, I will to arganize a co. in Sanisville 1/5, to control that cit and purhaps that, but with in the meantion I hearn of abbuty familiar with the warking for of the medining to the extent of him, ale to her in huter and and we all parts of the apparatus. Y.A. Jaime, La. Sm. Mut hog. 204 B. 11 th St. New york wir N.7.

ALBERT C. Importer of German Specialties, 61 BOWERY, cor. Canal St. You Gork, Jany Ht Mr. Thos. a. Edis onored Ri treed them off entirely after

understand, the greater The carbon barner, so much more light could be produced as I am completely inreplaned by the secure of my light of lake of me will be formed from the letter and paling my my consorts. M. J. Breitenbach, b. Dorreng. The natches would be absolutely uscless as they would make

the surface willout

conduction

Part Huron feg 1,111 1880 I have been murting for a lang time for the elicture light to be perfectul, Jan my ronun my have an half mile sauth of the burley gain lest true gan ones have I have been ming and thenking of prilling indefended gugs mucho but from what I read of the theter light I I think I ong he able to use it before lang I talel Pitt I mould mite gow and ful ful and the Prophetical



DEPARTMENT OF PURILIC WORKS

Bureau of Lamps and Gas,

Room 21, City Hall,

New York, Jany 5th, 1816.

My Dear forTwas much pleased or Schunday lastwith my top to Mento Park, which little Nambethad now through you, a world wind aspectation.
Having plaid much attention to the bulgist of
the Parties Fight, and having stated eighteen months
since that I would have to fee follow take up the
guestion for I then hoped that you could made it I
naturally for I then hoped that you could made it I
naturally for I then hoped that you fure son home,
I was very much gratified when I four that you fuch
and achieved prot so an accomplished fact, and that you
had achieved what other facionation of the world had
failed to do,

I regretted, howover, that in consequence of the covered of visitors, I had me opportunity of conversing with you up on the subject of lightens our leasted Vest, which question had so from the formation you a visit when opportunity into be opported me of making you a visit when the through of visitors again trading you. What of fleory from your thought.

DIRECTOR,

ALBERTE, LEDOUX, A. M., Ph. D.,

Obereles to N.C. Dept. of AgricultureTo N. C. State Geological Surrey,

—AND—

To the N. C. State Beard of Health.



W. B. PHILLIPS, Ph. B J. C. TAYLOR, B. S. A. D. MICKLE.

(1-6)

Chapel Will, N.C., Jan 5th _ 1880.

Prof. Thos. a. Codison, Meulo Pane, dr.

Dear Sir,

there is a very large element of absurdity in my attempting to more any anggestions in regard to your experiments on electric light,
I may be entirely mintaren in my premises, but if I can't
judge from the popular accounts of your experiments, the
difficulties under which you labor at present are, first,
inability to secure a perfect, absolutely perfect vacuum, and second that the Oxygen which contained in
the air which remains in the land reacts upon the
Carbon ultimately destroying or seriously affecting it
If you have not long ago tried it, I would anguest that you
fill the lamps before attacking the Sprangel time with
some gas - precibey kitrogen— which will drive out
alt the air.

The one milliont bart, or whateur
may be the proportion, which you are compelled to have
in the lamp, will contain no Oxygen and exert ab-

ALBERT R. LEDOUX, A. M., Ph. D., Chemist to N.C. Dopt. of Agriculture-To N. C. State Geological Survey, —AND— To the N. C. State Board of Health.



W. B. PHILLIPS, Ph. B., J. C. TAYLOE, B. S. A. D. MICKLE.

(1-6)

Chapel Hill, N.C.,______18

Solutely no effect when the incondessent Carbonic Carbonic and will not do for this purpose as it is deemployed by charcoal at a red heat, fring Carbonic Oxide and liberating free Oxygen. Hydrogen will not do. Stitrogen, without stateging the question afeenelly, afterns to me most ment and thus best adopt.
ed to the purpose suggested.
If you have long ago made the experiment, blease pardon my writing. I am one of the fifty millions of american citizens who are interested in your forsent works and have profited by your part inventions.

THE TEN OF THE PROPERTY OF THE

Mulfrek San 6 1880. Thomas a. Edison En Dear Lin. The question of the best continction of air - pumps for close expansion has come before our, a I dim to avail myself of what has already been don toward their perfection. Will your he kind wough to inform and of you wake we of any of the public term from from and of co, and of recent style, when I may west with a durition of it. It the hamp employed by you is executially different from them funnely known, and then is ar objection, I would be glad to are it. Could you allow are & do Co? Very enfulfally your

would heles collar information he Can attam wants Like to Mouther Timed get say 100 Lbs of 7 Conte on our state Board & thous More Many land of the Many land of the Many land of the formal of drymit to doubt you have the with different twiners Willow and Steer I notice from the Papers that you use Paper - bard Board - now I suppose this is made from ballow hags - The Pulp for the Paper is produced by Chemicals - Jode hesin so My object in writing is to invite your attention to what may be a great improvement that is Paper on bard Books, - or hather the Dulp first to be made of Linner .. Flax of Linew . Hax (Jeourd not Short) I know the superiordy of Flag we had und to call it " yarn" men that 50 years ago- for the Wiels of Jallsen Candles - Thronger light mere dulable xo. The value and durability of Paper made from timbers Hays or Timen blok is instanced by the Bank of Odfland Roks made from Flaren Pulp, only If you think it worth with I will engitive at The Paper Mills, when the Poper is made, for all the particular I posibly can get. I think you could have a pulp and bash thous much on purpose, thefe, Thicknest Site, on as you might require . 9. J. Over.

Have your frie the blass blos double difference between letter and 3/12 of illowice this the Pa you wer Fafer - land Beard - now I think Shish Flax is considered test this is enach from harlen hand to the Popler is produced by Chemical Shall be happy to have a line from ne stack on underg it to invite to wild they to a great influence of Paper as line leels, is wife, the The be reset of Joines . Fing. (Spens of times the superiorates of other west to cate it " ham" our that so y the heets of Sulaw bundles - Solars min duvaito xo. The water dark darieleted of Popus made Part on themen block it inserned by the England level made from Starter Pully ill ipa think it worth with I will an the Poper Pailes, when that Welen is mad particulare or towister con yet -. I think the could have a puly a

naki on parpose, Aufi Michiel S Yau mish ragines

Could I sue light Him Operation throwow want me and look at it for them when the want of the wan

and the second process of the second		4.15
LIBRARY I INVENTO	RSPINSTITUTE.	INDUSTRIAL NEWS.
PATENT LAW DEP'T.	AIG MIDITIOIE,	INDUSTRIAL NEWS. MUSEUM OF PATENTS.
READING ROOM.	BROADWAY,	SALESROOM.
replication of the second	How Good, Jamy 6"	1880
Thomas A. Edi	son ag	-
Dear Sin:		
- A scientif	ic friend and corre	Spordent of
ours has placed in our	hands a describer	T-
imbroud Calley las you	and the second	m of un
improved callon for you	c new camp, with	the riquest.
that during the pendan	y of his carreal w	e shall sub.
saul same to you !	for practical tests_	
If you find upon trial, th	at the inventue "	daireign and
the value and elliciences	of laid and last last	0
the value and efficiency	of mos new eight 2	ume body
is well founded, he desires	to assign his rie	ht on reason.
- able terms to the Compan	y who conted you	Patents, or
to junely individually		
. See See See See See See See See See Se	Jone Smey	
	Land.	assure
	- Buten	T Deph
*	The Inven	tors Institute.
Conclusion descripation	•	
Cuclosing description Nulcanisch rubber Car		
wicewisco ruster Car	Tum for blechic Lan	mr/
)

			*
LIBRARY	TMITTINGE		-
PATENT LAW DEP'T.	INVENTORS' I	NSTITUTE.	INDUSTRIAL NEWS.
READING ROOM,	No. 788 BRO	ADWAY	SHI ESPOON
	New (York, Gnelvsed	~ (6° /80
	Extract fro	m Cavear_	. 1+
"My in	vention eonsis	to in the w	se of a light-
- furne body,	of any desired	shape, com	posed of Carbon
formed on son	byecting vulca	<u>wsed India</u>	rubber, or
guta percha	to hear of a s	ufficiently !	nigh temperatur
to expel therefo	ione, by destruct	twe distilla	tim, all vola
- tile matters.	The said light	-quine bod	ly after being
combined mi	the platimenin	electivaes,	is miclosed
within a glas	s wessel of any	y disired sh	ape from
which the air	must be ext	rausted by	ame Suitable
means. The >	said electrodes	anust be a	land to
project beyond	the sides of	the inclosin	e alass
vessel for the	purpose of en	abling the	n to be con:
inected with	che electrical ge	merator."	
The second secon			
- Land a	The Investory Institute		
	- ventory -		4 , , , , , , , , , , , , , , , , , , ,
	he _{Int.}		4.1

our price list, which will ohen Albion Tube Works, you the class of goods we make Birmingham, 8 January 1880 and we shall esteen itafavour. of you will inform us, whether Anyweshall Mento Park you convide that wrought iron will be the best material to use Lating builder, Aff of Co. Rear Sings workerment the for the purpose of protecting the wires and also whether any special fittings would be required, interest the accounts of your as for instance whether the bend gradual perfection of the or elbows should be of any special Electric hight for household purposes, and we hope to be pattern, as in that case we able to supply wrought shall be glad to know as oron tubing in large quantities soon as possible, in order to convey the wires which that obepo may be takens, to produce the required article will necessarily be required, ouccess fully & grickly for this of for the Telephone Prices have risen os duly protection the surroundings, rapidly in the Started States instance, and agrand. that it is possible, even with Wetherefore beg to enclose

the extremely high protective duties that tubes may be imported more cheaply than they can be made in the States , whether this is so or not we can confidently recommend the greatity of our manufacture and shall be pleased to do business, either in america Commence of the commence of th or England, for the Electric Sand and the sale sales hight or Telephone was with an adjust some some in a some apologioning for troubling - 14 Days you in the matter when you have so mich all to all in grandful all warmen of detail to consider, and will necessarif he regue wed hoping to facilitate the was for Their of for the delless dance) The wires We are your faithfull Jane 120 companies in the story Lloyd Thloyd was a set of a look growing so the said

J. S. VAN GILDER, President. F. A. R. SCOTT, Secretary. Finoxville Leather Company, mento Park n & brie I mote you last spring in relation to some corres pondence on some experiments of blickness; + Electrical attractions - So than when you had hime preones pandence I desired to make some communications of Experience to that I had studied towhed ripo to you shell being busy + reasing on your paper theory I make this sing geshow to y as having occured with me a Jemy ears ago I had accumula ted a great many deferent papers + cards - + in burning sep - I goton to some I could not burn in the

Shove + had to take them out it occured to me if you mas to take the barrous cards + segus + advertising carculais + Burning the diferent lanelies your might 8 hihe on some one of the Same I am under the impression of was some kind of Glasing orcdering that apparently made it in fire pro I remember it well of the bother to get them our of the stone But thought nothing muspecale of it until your paper theory of micho or Burners. deferent coloring matter ma Combination + produced the in Tespectofully yours Inot lean bewelen

- Edism Con of the world I am looking forward with great interest to the time when the blutrie light wice he available for the adinary purposes of domestic ellumin your recent discoveries in relation to the employment of baid bound seem at once a dupply this good distination, in its displest and charlest form and is I sensenly trust destine I superide all that has gone before it -While wading an interesting account of your grout discovery , one could held feel how extremely delicate and fragele this

film of carbon of an iron grey whom the observe of sufficient oxygen & cause combustion of the strew. had preserved it charred filament must be and Triulually in its perfect natural form. but it was began I think as doubtles you trave crist and hurd and immencely stanger than mere charred than would be . done whether there were may easily an experiment could be asely tried at means of otherightening the little horsester a gas works. by pulling in the dried and their a made of daing to accounted & cand pieces into the ofter end of the In me which I have thought it worth while I sugged for your consideration gas retart and only felling the you part of the relast with coal . - you will at and I shall only be too pleased it it arec see how cheaply and sasily this should in your very able hands add deposit of curbon court he given to any however slightly & the success of electric substance & accosing the article in an listing. Trefer & the deposition of our file high ridhet and through which felms of time carbon by imandement coul yes healed as hit blast, was pased. to carbunette hydrosen gas . - Thank and with no loss of gas except the partin seen a large which of Straw which had of earhou actually deposited been thrown into a ceke-onen beautiful, Other means also suggested themselves such as suturating the card with solutions of water with an even polished glistening tilica, tatily promable by distolving

the common black flint of the chalk formation in an high pressure boiler with soda, as in Rousanes : Paters Home for which you have a Company in new york - in The Mainfacture of The card board fine silica deposited from its polution by aid and in an excessively Jui state fdivision could be mixed will the parte and between each that of paper. or Stan pawder. curle he used and gits fuseen under hear toughen the carbon while the promety present would be far too much & came the carbon & roften and fall . - had I a passer with so many resources as yourself there is no need to Multiply suggestions, but I know by experience as an innertor have useful it is downtimes to be obunted of air of track of thought into some new line, and it is will they take that I have taken the the liter D tegget a matter & you about what flooring to he you would you have much all you own Jam you make you som. Journal of the Bessenus?

Telace Holil. Buckenghamfal. Vondon. Jany 14 1880. mydear dir one of the multitude who have followed with interes Harles interest your won desful careir bus with perhaps a degree of experience wither becivitudes y invention for. lessed & few I more no ofologie for addressing for. The instant the telegroph hough word that it poper you had found the desired medium I Knew this for were right to me The Confer motion brough of The lines

correspondent was not needed for I had at mee becognizes that you had his upon the thing . I think that Lane a voluoble luggestion mobe + altho I have loss. efortune show my faith we The Quiceit of a county man of four sur admiration for from general och continues one sides ale + I dend my ideas type for what it way be worth I shake me this if a perco of cardboard of the lequired form and lige lay The Knseshoe jour have adopted were placed sofidly between two place of glost hot enough to at once carbonizo Ru bafer and tall to each other a lands of minimum con

& effective tomeste thodereed the platinum wires farmy two Connection hught be inserted in the card. yet uncarbonized & being ast were limitareous hubedeed in the gloss would he necestarily in absoluto Contact the gloss y course to med to them to as to fee hait the need ful expansion without with y parelies. L sups be findly polished flact or worses with leuxes. so huft be found advisable Law alard worthing painter of Sand Leche his dance ofent much money & from much attention l' lecence made his for The circustam

alluded to above no long all my copeled . I might now he this un, lelegrophic Lother inventions whos of andoppy to feel for will helivon Denbri Sdeden with program respect a cole Mury foots

miring the frice of angol of you the and upwards for her the in Common Major absent at the time and of Good when broken, I think this Coffer was the Cast State as the Common Capper would

Detnoit & Lake Superior Copper Co.

Houghton, L. S., Mich., drawn int fine likes one een informed that Common Coffee Wish Enductor of this is a fact of think it would

Petnoit Lake Superior Copper Co.

Houghton, L. S., Mich. as the oxygen held in the Metal is the element: of Crystellyation, and it sentirely removed from After if all the precautions are observed cities the metal. All of the impurities in Commercial Coffer is Considered inquious for conducting electricity, and I think the oxygen there is a decided preference in certain branch

OFFICE OF CITY CLERK.

Our lanterns in the re hereby tendens in I the Samp Councita periments as he ma Shop God

Grifsenda Relinn Thilly Jan 18.1881 Mr Edism Dearli I see by this mornings /papers ejour lamps (1) for my morning pupers from tamps
one preating If you can a cond. we one of thom
or a setum tidely to think I can help afour out
of your difficulty as I am a practical blay bloves
what quidoritains he manafacturing of the
motival of what your tamps are made of Bespectfully yours Bustin & Danney 822 adams of Phila

Prof. Edison, dear sir, My dear sir, Reading in todays frapers de some trouble with come to me that freshals Mica cur be need to advantage. I be lime that it does not contract or whand muder the influences of wither heat or old. I know of no means of form - ing wheels of him to meet your we, but trust to your inquirity to find them. I can only say that I shall be pleased to give you, if you wish them, some short of clear unica of much the house that you may be able to nift them, notice you find the thickness required to meet a pressure of 14th to the It open succeed in these satisfying mica, I can furnish you with all you with all you wish I of so clear I transfarent a mature as to ausure you furtous.

Your text

B' white

OI B' way have seen large I waied become the sum of the mina of whe, havill send you some, if you deine,

New York, January 16th Thomas A Edison By. Wenlo Park N. J A material (Silica) for moting glass is found at Golden, Colorado Loughness, and strength, no other substance has been found to Eyreat it _ Samples of the rough Islass are in this city. The Glass works here, have testitud it It might answer to make the Globes, in Lamps for The Electric Light all glass is 645 Broading differ t qualte

SSOFFICE OF≪S

THOMAS P. HUGHES,

Plumbing & Gas Fitting,

We went by the state of the soon of the soon of the soon of the sound of the soon of the s

OFFICE OF GEO. S. EATON. Manufacturer of all kinds of METAL MOULDINGS,

PLEXIBLE METALLIC OIL CLOTH BINDING

Dear Sn To aen

and alt as a Clemper

the hear del vapir or dearn formed during The night,

Condense during me

Water boils in a Vacuum.

l Brewer, Gwetary: New Yorki Trancisco: Having of der brouged thread, for triedight it the sprawed peat might be that Gould to bonized with good it. sulto for your purpose, po Lava fibra to keep it from cough Sdonat know any thing of the quality that made as fire a fire as doal, burned to very part if this is the word

to us, when I may be peal of a more fibrown hature would asses the purpose battar. Iransmoser some experimento in chaland with dompressed peak for getting up steem in angene or toilers behould say when it were found that with it, steen would be och up in little more than half the time required by any! Combustible thea weed. Whether this may have any bearing in the matter, my went of ahamiant or saisatifia knowledge -presents un from knowing Staving as I said read of your of perimento with interest thappened to think of peak and think it and do no ham to mention it to god, although probably goo have tried it Law employed in kingambles office in a alexand position, but have no known ladge of tolography or the workings of clerkings of

gethered from oransional readings. Previous to lawing How fork lovers always employed in a besting on Consting House Imanting to alogy, last wh had the pleasure of introduced to you when you Sandarainda, but of donesa Famender and. Art Crevant of the W. N. Lal. Bais a friend of mino - planel

Moento Bark Jan. 17 1850 Messis Everding & Jonks Thanon thee Beauty Jan town Toose be so thind 20 To heep me well posted on the results of the experiments & tests of your Steam goverator. I gon of the property time property interested in property in the second and any constant of the second to the Trey information as Description of Dotails of the generates & engine you may be inclined to give Bespedefully

CAND GENERAL MILL MACHINERY Tichmond Ind 1/17 Mr Thos of Odison 150 in To hand said motive the hat the world you man him. Will son I have not as not enceeded in producing the Mant (as I believe) of proper mechanism appliances as well as time to dust to the subject My Time is venticed with mix Justing lawny only commy for repermentally other Trint and it I don't get what I want I will there in withen went lay the matter before you me dehair say inthing there days yours Besterthall

Liar Sir I have rearly invented in apparation with which I produce a horfeel mount, of course posple doub! and destuch because phylosopher have said it was imposible, bal this does not aller the fact. I have produced within a glass rested a perfect recurren in the presence of hundred of people, many of there scientific men amond which are Bof Clough principle of the high school of Portage Wis, Prof Show supl of the city solveds of Madison Wis the State Supl-of public Dehoots of his, and his apistant as well as Dr Piper a Descritist of this city who all acknowledge that

Fran Line do predace a perfect-Menuin with my Valveles hump Now it his been juggested that il might be aseful to you in connection with your electric Right, - If such is the case and have have any we for it, it would afford me great pleasure to furnish you with an apparatus, or informulion Menerary to its construction Believe The I am Man pleat by no atter motive than a desire to assist - in the retrancement of seina in thus writing you, for, should I be priviledald to provide you with my punge I desire to do so as a present and may otherwise Should be pleased to hear from you at an early date; Motel such time I shall Remain as over your admires and friend 274 Fullow SI Chicago

phies Pa Jany 19 50 lacker for 19th 1880. a Gauscher the glass charable general o, so that, if it has ter, it will not be at least very selder. If you should feel welling to one there my love onethodo or one of them, after having

to hear from Vanscher The Par.

M West Trayny Sem Geo Cain severel Prins acco a an

one Most will do. be pleased to here mork and in lus. 1 When any appointers mon willfa that frepare. would by plyind mobilion me 1 Mitt Burnip you rely for your billpore. will asker to build you and smike a growthe What it will be for Inferior to my have when I am host a fringh. for my down use, I have Muffer Simething en Shiftened, and of I have " April & Rome pom ex-

T. A. EDISON, By presenting this no will receive a ticket to New Brunswick or if they have them, to ments Park. I will furnish the return tieket. Verytruly Presented to

Medingtony 10 80 Prof Disson Martonals and by love gangon

Plautical Almanac Office,
Havy Department, Will Conserved
Washington, B. E., Jan. 192 1877.

Oly Dear Six, of wake one suggistion respecting the carbon
electric light. Of dunder,
eland the case correctly a
carlon conductor gives much
kee light than a platimism
me with the same favier
and resistance. Yes at
Le this not owing to a want
of solidity in the carlon
and to its heterogeneous
texture? Chay it not te
that if you could give a

artid texture possible, you is orld get a great deal more light from it? I do not know whether the experiment is practicable but merely suggest some thing of the sort to you.

We obtishelism seems to think there is a very great obstacle in setting up our ordereity of light apparatus at Mentur Park owing to the want of a hotel or backing house where the operators can live and sleep.

frin of carbon the most

Otherwise I should like very much to accept your that offer as I think the advantages of your lab-ratory would be very great. I suppose we shall be ready in a couple of months.

Since very truly.

Simon Neurout

Ehomas G. Edison, Eegy Ollenlow Park, Oliw-Jersey.

GEO. H. LEVIS, Tho " A Eddison Ex. annealing glass now operation in Brackly By the process glass is made can be melted in it. at present we are annealing use to jon have aug. treyer who Superilandto

20.18 four times agon after the lamps wen Sun. Would not a few or a po of makage or by the

2 hes, and pre-F. T. Patton

WINDOW GLASS WHITE, GREEN AND BLACK GLASSWARE.

Sippincott,

BROKER. Class Ennn Chimneus

Tanca Warn OFFICE, No. 3 SMITHFIELD SPRE TUMBLERS AND GOBLETS.

PRIVATE MOULDS Pittsburgh, Da Tana 20 1880 AND ALL NEW ARTICLE

Having read in the News Paper Som items relating to the difficulties of have Encountered in Consequence of the Glass Globes breaking on account of the offancion of the wire when it enters the gloto, O Concluded to write you & Jay that I think I Can put jut on the track of getting Globs made of a quality of Glass that the trouble will be as many ownerm possible, in my openion bused on 25 year of perince in glass Making there is but on Amid of glass that Can be pelied on for your purp

WINDOW GLASS Lippincott, WHITE GREEN AND BLACK GLASS BROKER. Glass Mann Chimnens Table Wars. OFFICE, No. 3 SMITHFIELD STREET. TUMBLERS AND GOBLETS PRIVATE MOULDS. Pittsburgh, Pa. think I might possebly Swill be pleased to Mail or Expuse with a Statione & Such itims as you su fit Mention & I will take plea In Giving you my best efforts

Sample with se when in use

it out chan

Our sole trouters

heat grady for would be agrady hat won probably auro

will from sond me me of ejour lamps two dozen of ejous wries and one dozen of ejous larges and rem fors In will be rem exp too ams I

P. a. Edison, Ery Manle Parky N. D. - Sousie: your inquiry about the oach of water pour this place, I Send you with this an illustrated paper which will give you full details I & careed upon Mr. Goddard the night morning after being you and mode application regarding Holyoha, as yo

Knayville Jenn San 23 1880 Thomas a. Edison mener Park n. J. Lopi . Goist, I notice by papers your have some trou . a our Elass Burners - or lamps - & manufaction by ears & in MI + 2 Have - + haded in Blass some so y Hence - allow me to make some seeg gestions . that may be of some service to you in reference to them First-for your purpose - the material in ivery part-must lee perfectly peure - tale through its process - any sand 3 pech on from the Crecible . in it will cause it ocrach by sudden changes of hear or cold -The 3 hong the of Glass is in the enamel - The mouth of your Balls must be thoroughly anneal - + your Rales also showing by tempered - give them after made through Verypering in an oven to retain strangthafter this take into consideration - if any heat mide you much protect outside to make a succefs La do do- make a Second larger- Ball or case of Glaff - + let it come down over - your first-nike a shoulder on stand around below your first- and let it have small air holes-only-in the base-this will protect - your first - from sudden currents of heat + cold + not effect your light - by being of uniform Circumference of the Globes to your first If much heat is acted on the first is might be necessary It have a begory small opening in Top of 2" (but small) Ugan - to make it practical opermanent

On the street you then place the Live into the ordi many Class lamps as used on the shalf- to protect the two from the various nearles - knowing to nell the nations of class - I pine make this king gestion for your consideration - and think you mile find Something dimilar mile be necessary to ensure stability - ingoing Elobes - + no Blobe used that is not pine of imperfection + also of even thickny - a thick siels to this one mile not be reliable - and a peur light can only be protec ted in the general manner herein indicated and it will be an easy matter for youto lest in come parison to your others - Perpechfully yours Inos leankildery

San Heaven of that unfortunate class called inventors I have taken a deep interest in the success of your labors on the electric light From nevspaper reports obstacles seem yet to exist to its practical Success Several times within a few months the impulse has opme over me to write and offer a siggestion to you without regard to taking the risk of seeming presumptions Without stopping to explain difficulties as lunder - stand whether correct or not I offer a suggestion based whom

experience in building funcces subjected to intense fire and where fice buck of the best quality were of no wait for any considerable length of time To get rid of the difficulty I used a few stone which can be had from two localities in the country and is cabable of withstanding any and of heat which can be produced for an indefinite period of time It has occurred to me that this refractory material might be used either alone or in combination with other materials to take the place of paper costours if it has the proper conducting hower If not powdered it might be mised with other meterals to give This At all wents it would

cost but little to try it I revivally heated to a high temperature and afterward and afternand mixed with fere clay the mirture is infusible Downdered Springy Platinum Mired with this stone and fire clay might do it or carbon clay and Stone might ausur or a carbon pencil surrounded by clay and rock to protect from the action of oxygen if not in vacus or in an atmosphere of netrogen Several other suggestions have occurred which I will not stop to outline Home of these things may be good for any thing trial alone trial alone must decide but if I were brying to solve such a problem should gono them a test as it can te done greatly and

cheaply If what outlined is not good some hind inight come of the trial that would give the key of the difficulty you may have traversen this field dready I know not If so this will only cost the time of reading and can do no other harm themist, applied to the arts has been my specialty and I have learned some facts therein unknown to others If you should see fit to make any inquiries they will receive attention Mishing you success I remai Respectfully your 187 Temper A8

1880 86 the 19mp WINDOW-GLASS, WHITE, GREEN AND BLACK Sippincott, GLASSWARE, Table Ware, OFFICE, No. (3 SHOHFIEL TUMBLERS AND GOBLETS PRIVATE MOULDS. Pittsburgh, &

It was fak Boshu for ye of take longe

SWARTHMORE COLLEGE

SWARTHMORE, DEL. Co. PA.

1 St No. 24 H 1880

I. S. Edison; Esterned friend;

for the counting raphy to my son could engine as a to the state is required for the personal and Multiple she was what I did not make the same should be sent to the same that I have to the same that I have to the same that I have to the same that I have to the to the same that it around he way to sentent and engretingly arounded by sentent and engretingly arounded to the same son your to sentent on the same son your to sentent out of superfection of the same same to the same to the same to the same that the same that the same that same the same that same that same the same to the same that same to the same to the same that same the sa

times of hereactests, and their complete refurction of hereactests that usual actions of the time of the times and their face theories, might make them beneather their faces, might make them them beneather that the their facest production of the timestage, the production of the timestage, must be largely determined by specifically they fear they constituted the faces of the timestage, the production of the timestage of timestage of the timestage of timestage of

9 Welook se Noons homas A, Edison for GAL

For amothing who to a 29 m/ Machinely memales To altanh a Tour cellin Vacuum mhich & can do. I was merany prigion to out-familied This appoint is, much more thimple check and Murable Mon only mour in pise This fis a great which I have kently fine full fir my one whe, as down as If fruit this one Mull offply for letter will conside if ruletest-A reply such Year Respect Geo blak

In hossing Metro Park about 1045 ple a lung & number of howargers have need of your lighter beer do not know that We go www. where bean it a gover onemy horry from them both may so and is blesses them my mutch on 8 study might I have a good true and I gas them ag-I see the light bis no lightving soty were fooled so I had to josto long one will respective the son los eg het gom to bed and blywed his light some my o coult el mher one you giveny no taffy in going dough my time of line some of them gave it to one they said their comes Ender in

Some Said Tom low is you lighton by men not need the heaping me a live all fine less maple ! bet public to brings if the he files have so the helps have from very mutative heard I pros Jun place in 5-45 All in the morning and in mes all of this moning me have a good ene offer I tit that this terrousnes hoogs as male as 8 layer made mulitie to see the Edward light - South is a by much amongst no your light look Sklendist and I hope you my Decede Jos Toly J. E. Files Cande clan L. Ex

Glass Company of Ame I am confident I can make some due gestions regarding the glass portion of your + in preserving the vacuum that would to you; ou presentation of these your could test. + thus be able to cover cheir use by patent on Lamp; Should these suggestions be m Successful in accomplishing your en give me as a recompense, day The De La Bactio for Oil tempering / proces the use of Super heater Steam process, for aurea glues globe portion of your lamp is suffice wires pass to the incide of globe, and is, as understand, the weak portion of your lamp, when the glass proves defective from cracks caused by expan

of the wire, in heating Mily adderfy is for a few days to new york city Port office.

Very respectfully formary with the Coment association, Louisville, My, and Josey of the Plate Ref C. at Jefferwirdle, In

hem of electric lighting at the . throwing the light in the State of Pennsylvadia, these man pur the from policined from the leading telectric Sight les of hew york. written to om your and in reference to thematter and have his refly . stating that havile office you of print interded wish. themes you be pale to give the truly grant furance planting it ploubt pender their weit much more flearant pa well pa matauchener, practical insight into your agatem

ypur might be better or wall than you board, but it seems wouth Washington, B. E., Jan 28, 1880 Trying. your very truly Thomas A Edison Esq Simon Neucecut My Dear Lix you do not seem to have eaught my whow about The electric light. It was rept to wie platimine, but some form of carbon of metallic sali dity and competition, should such he former. It might do as well to try entron filese numing The whole length of your love shoe. That is, take-cation stuff, count it out pute the files togethe into a west of the night leugth, and bake That The

The Edison Speaking Phonograph Co. My Dear & will see ther some bests are The Edison Speaking Phonograph Co. raising morey here on strength of hang night for your light P. O. BOX 2702. 2 New York, Because The Edism Telephone man some named her who is being own here as a trie to the says he has organized 100 companies Bell like, They think the light I has the isside through much be a tail to some thing - 4 Janyton piens. so they comentine it so a tail & Sourger !!! of you have not done so room I have some of the best non you write to les 4 ask if they here ready to just up money on will les you know when They are needy wash in but Lowy told me the Go to autici for wash'n -

Lu 4 Pariza

word no make any promises yet -

a license or mornise of one from a

The Edison Speaking Phonograph Co.

GARDNER G. HUBBARD.
Vice Verifiert.
THOMAS A. EDIBON.

P. O. BOX 2702.

Way York, 18

Antional Republican.

"Experience at the Post-Office at Washington, D. C. a.

A 31, GLAPP. KDYTOIL
THE NATIONAL REPUBLICAN
a positioned daily (Bundary accused) by
The Kelkeri Bepatilies Printing Su Politishing Ca.,

No. 1000 E Breen Northwest

City copy to par

ERENS S

City copy to par

ERENS S

City copy to par

ERENS S

Address NATIONAL PREFITEMAN

Wathington D. C.

For Consumerically in publication is short to implement to the particular strength of Aspertita-mentally and Subscription of the receipt of Aspertita-mentally and Subscription of the Particular Subscription of

Carrest Legitimate Morning Circulation in the District.

WASHINGTON, JANUARY 28, 1890.

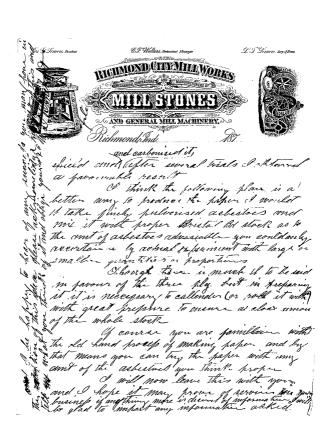
OFFICE OF THE VALUE STAKES OF A STAKES OF

MARCHING ALGER AND MARCHING AGENT
WITH EXECUTE AND THE STATE AND THE STA



Mr Show A Litison When Park N. J.

you a report on My represent to will pour gain yafen for steeling lights without going met details as to my so perments to high have been of ench a maken as to prove to My self that it is practical but me being my paper new made in this would be thought from the sound asbeston from my contraction of the proceed on asbeston from the sound asbeston from the sould be present that the product was not still it is not confined that the product was not still in margh me are an other than the flaguest the property of property was not still chapter to when they will be the property with the part of the property which the property and the part of the property and the paper of the property and the paper of the placed the paperty and the paper of the placed the paper in a clay matrix of



Ja. Edison Es Mento Cank 21. J. So reducing notion the medicator barne duly to the the and ellowed have buy answorld before Our wood norkmin have been very busy or no would have had my made. as troy do not sind them in Borton we rend you the only me we have which has bur was feet twice, rather than to delay long enough to make you a better one To you wish to use a while to efferiment Jugar mich to kup me me mes make a niver in and exchanging you diver. Tresum you felly understand how to use it. and instructions. Respect Yours Cott Brown I Con

New York, January 301h of Jam 24th is sectived will ejeufor my refe The substance. Silica formal at Golden Colorado Escenish tint Similar to the Bohumian with toughness, and Strength. The Pittsburgh Glass works has used it I found by service by service light or lamp. The orth one portiets the immer and is a sure Marriothe against excelling This is patentalised

OFFICE OF he **Edsilanti Laver** Co Ypsilanti, Mich Jau 3 (1880 Na Elson Ey Danson Sust arrived home of Eastern trip, this Evening having been gone longer than I can be and I can mil look over the stock

a to pubmit the following for your Troth in relation to the speed of the hulley on the generator requires " about 800 per minest know, again instead of punning with blither bette from a counter - shape, I propose to pun with

O' is the driving frictional July on the - Sugine Thats. I is an intermediate acting as a tighten er or clutch, to throw alynamis off or on, as the case many require A the Julley on the Syhamo If there is any thing to prevent me doing to please ladrice me for I then is any danger of the current Leing carried off through the pully to the man shaft I can interpret

OREGON RAILWAY AND NAVIGATION COMPANY, a monductor between Synams hulley. According as regards richning the chances

The yellow line straining the fine has some surporting lamp.

A being an opal shade outside of the lamp.

* being a cretal deflector and hear protectors for the ceiling carrying the opat shade, and wirl shopest holding the lamp. and screwed up to the ceiling toolid. In the other cooms I

with globe. Or that it you can oblige me with a lamp (a Parkew one with do) to git to it will oblige and ruly me along considerably, also will your cuppy the packets to drop the lamps into or with I got them

will but an ordinary gas bracket

OREGON RAILWAY AND NAVIGATION COMPANY.

PRESIDENT'S OFFICE,

20 NASSAU STREET, ROOM 24

w York,_____1

made out of wood myself, also will I take the man wires from the dynamos and twent them into a cable and them branch of from theory by the circust wires their man hairs by the circust with a girdes on every circust, and a text lamp between the man capter of mill I use a 36" dia coppie content interest of twisting them together and lastly what actual House power will I provide to cum the

four dynamos with. I don't

think from what I saw that each One ought to take more than two H.P. which would make eight but twelve think should be all Sufficient. color if you will let me know the harty that is building the dynamos for us I will send the friction hulley's for them. for this long account Neman di Dr Genzi Artil Philadelphia. f. b. Henduson P.S. if it will buit you better I will come up for your answers to the different things if you drop me a protest to that effects

228 Town of the 3 /3mm

by Express to a hove address (1) Carman

rester Mass. 3 FG. 2, 1880 -Fran Sing I have read the description of your Electric Light in Scribner's Magazine for February. a perfect vacuu cellis I may be prosucce by filling the Turverted lamp of through the late, F. which must of course be mo 39 inches long - (See Fig. 8, b. 537) If the carbon horse shoe, L, is not strong enough, it may a wriffice in time foil; which be mitted by the first curve. Please notify me if this suggestion has value your truly APMarble.

Thomas N. Edison Ear. Meulo Park A.J. Pleanfiarde the libert I take in Concurring a mon of your valo char and lu elictric light, two suggestions occur to me which an infinite from the to lay before you . They are a simple that them, as they are so likely to have be much michaniel difficult of the cracking of the glass, through which the Cracting of the slices through which the platein would sugge that, initial of freeing the win though the glass, a small briefs while or take

be passed through the glass, this cylinder howing a thin wall and an interior bore possibly not exceeding an eighth of an inch diameter; if hufured its exterior surface night be corrugated to make more secure the union of the glass. The pass the platimen wire through the center of this tibe and close in a suitable manner by a "non-air-conducting material the outer end. The air wow being exhausted from the globe and tube the exhausting and contracting platinum wire whold how no effect whom the glass. To prevent the wire from touching the brass or even slightly hating it a packing of asbestos, plaster of pois or coment of similar "now- heat conducting "Refetere might be interposed. Or, by means of seria-caps on the evelog the tabe

Draw D S.....

(2)
SON & SMITH

PATENT ATTORNEYS,

this packing might proselly be brought under such preserve as to be itself, non-air-conducting also, in spirit of the alternation expension and contraction of the platinum were. I purposely lien the platinum were. I purposely lien the platinum were. I produce the suggestion incomplets as to the mount of the own the class of the contraction of the class o

but away a large vary matical.

Alates & the production of a vacuum in the globe.

Lying College dogs a formation of a comment was the production of chloring and I became somewhat formation with its production.

My suggestion is that formous to

it be filled with chlorine This hong gos will really displace the air Thin exhaust the chloring and however imperfect the vaccum no ham can result, as muther charcal, diamend non plutings, provided they be theme, are affected by chloring. They do not combin with it and may be hat in it to white without undergoing any alteration" legiston cannot directly unit with chlorin, which is not true of mitrogen or any other gas, although chlorin sufferts the combustion of other substances. The principal function of the vacuum would then be to present the realistation I heat & the globe. This process of producing a vacan for your purpose is closely patentille horised chloring his not been want for This purpose in this relation before, as

or B. Sarra, T. S. E. Dizzee

OFFICE 40

DIXON & SMITH,

PATENT ATTORNEYS,

no other gas has it prealer properties Carbon also heated in chlorine count change with the form of graphit. Possibly an advantage would be going by writing the platinum to the ordinar wires within a small suffilementory globe or bull filled with chloring, when if the interior passage became imporpore no harmowould really and of the exterior processor morningend the order would attract time att to In the exterior preside them would be but slight expansion and contraction. I have not "reduced to practice" any of the incomplete Rogerations, nor shall I The law was settled in the Supreme Court, in the case of Prog. Morace that a distinguished inventor laboring in the field of scientific research is at liberty to avail himself of suggestions and conveil from every yearter without imparing his right as an. tor "And the fact that Morai and act I upon it with impairs his right-Of course this little is confidentilon my part, and while I connot expect that the suggestions in I hues that this litter, in spirit in which it is written, a not be regarded as an infure

OFFICE OF

The Epsilanti Zaper Company.

Chi Exp. a Rample of to find ont if this material will make the Cartons grow regning. I will have to make Rome Changes in the madeing to make the regions thickness and finish. If this material is any better than Bristol Board or other materal you Vise . (I can only Expenset on Sundays is we are so crowded with other orders,) I will try and make the paper you somas: & Comment and Obline Some a Clack Comment

Holyotus Mars. Just. 11, 1880. Jours of 2 with seed. & paper Sent Mr. Galdard ___ I Thave be pleased Dend you gas Statistics; but, can do de more Satesfactoriles for both of us, if you will State the points you with them to cover as an lawyers Day give me a bice of particulard. Want the Capital story Tay truey yours, not of 1000 feet gus suce yearly price for 1000 to grown stanton of the good of the

T. EdisonMends parts.
Me Starbuer will
dale upon you tomorrow
in my puhalf in regard
to Eurofean stocks

15 paid
15 paid
15 paid

Dan you per mi Starburk in regard to the matter about which is telegraphed you yesterday if he come out on the one odock train

25 paid Origin Stram Hangatin G
No 4500 My
10:39 am
2000 JES Sur
2000 JES Sur
Ta Erlison

Some days since in relation to annealing some of your glober, if the proposition Contained in my letter For 1904. Satisfactory to you to hat Frouldo be? Greatly think I can be of Service in the matter proposes

Ohiladelphia Jary 31 to 500.

J. A. Edison Cay

Ofn. Mr H. Sperny einte
on the 20th Concerning on porces
for amealing klass Jan spelied

GEO. H. LEVIS,

prompty on the 28? how treath for you to permit as to annual his of your globes our process to according to be the blow away with the brittle nature of the blass

If me can be then globes the can them on that help you fort is deserment to part it send them to store address atoms

Gows Very Into

Broklyn & J. Fit 4th/1440. Abr. Odison I am ready for your expired for Steen my Furnace is read for much much to worth I would be site to see you by Haturday if Comment at Mention Park wich for an early riply.

of Russin of you can u Rim to the scribnes article & Wice admiral - Pestohonroff, reguests me by a letter of which I have the honor to enclose a translation, to give him particulars on four last remarkable invention in the ophere of bleetie Light .- not being competent supelf to treat the subject, and not vising to give own trally incorrect information, - should I take them outof the Local newspapers - I take the Liberty to apply to you hoping that one of your see cretaries may forward to me, the positive Mements of on onever to the admiral's injunis I have the Stoner to be Tur si To Mr. Edison very respectfully Monto Park Consul General

Translation of a letter addressed by Vice abmiral Pettohouroff Tiredor on the Emp! Aussian Ministry of the navy to It de Kartchersky - loud General of Aussia in New York.

Dear Sir.

Many of the beenpean Renaphus and more particularly the Lordon Times have published lately several articles that happy and remarkable solution by Mr. Edison of the publin of applying the electric light, for the illumination of buildings and streets. The long & Mri Moreover of the Many attacks the highest importance to the questions relative to the lectric light, but not know ing what in the Newspaper articles must be accepted as real tenths, I hay to address myself to four Exellency, requesting you to imform me in what consists that last of me believes remarkable inventions - in the appear of between light.

Napartfully (sisma) Postchamoff Myg THEARS OF Will her you tomorro 3/Norcy orhi Feler 10, mo Villiand too see to converse with me in regard boyour mother soonaske is able will talk with him am difficulty what we will do in This caticfactory



P.O.Box.4689.

OA. Cilison Eng.

Dear Sin: In regard to the samples of annualed glass which you recently tested and formed generatiofactory, the part, who furnished the aamples states that he was not aware for what they were intended, and that they were of a poor quality. He is confident that he can produce a

glass sufficiently lough to answer the Justine. If you strink it worth while, please send one a few of your globes, and I will forward them to him for your lests.

In Binckney

Junconsupper or ascularing from sury for the sury of mell pay you first from a glass manufacturer and have a great deal of experience in sembining glass with metal, and reading in the purpers, that your strature lamps are oraciding from each insperfect combination and being able to give you some valuable advices for the none perfect continuous of the same, I therefore take men perfect continuous of the same, I therefore take liberty to offer you my services for lunch purpose.

"Very respectfully Grander of the Same cit.

"Remarks to the state of the same of the sa

CHains northampton J. A. Edison & Dear Jer I have been to the Paper Mills and have secured the necessary information and Sam flu of their make which is the best in the Hingdon as the onethe for the Bank of England and the Garrenment Postage Hamps . The daniple Shut of Bank Role Paper is all what they call "Strong" all best Liven, that Thut if Jul Hat through the handle of a 56 to weight mus both ends at lip and clerch the paper in one hand will lift the wight without injury The paper at all, ___ . They can shake that to any thickness you may require in Theets of any Sixe orders They could be cal at your end to sail _ The Thees could be ordered so as be cut a certain number without waste all their Paper is Nand Mide by ordering large Theefs lest openie, - as a small Theel is just as much labour at through as a laye one.

Muse is no Mineral of any other wilestones or mather whosever in the marks of any of Mine Before Matheral is back to be suffered to be suffered in the Super water not a partie to be suffered from it washes in the form water not a partie to discuss it washes in the form water not a partie to discuss of Super is not discuss.

and nothing extet in the Granting or trethingform beginning it was but a contained flurging in flur water under the Gulf Exerner in official lits unto their blum then it is treety for the May, and Topon

The stewn Save File of Path are into in past, ground they are both, believe and dense the whitee are some the whitee the men has enco. Some in the Hay cate is "Managhe then the after I want stady") in the after I want stady.

The vample Start "Regal" is the best. They want for bedges that has been "lifeted" ruthere put after the server that the hoper place of the the server of the the server of the server of the server of the server per to the server of the server per to the server of the server of the server of the server of the server server server the server server server of the server server server of the server of

the seve of thet. Wheel would math a difference. The barges the cheaper left lathour. Showth they buy been street a shough. They will math a track take the street of it excludes a few pounds we must take it. They do not made "Poarth "Board Huy thind it is made if the but and it is made if the but the street in the part of the part of the but.

I have violates to "Bridde" there are 4 Mills but.

of a muse of meaning part of inf all thems.

I have wilder to "Brishl" there are 4 Mill but,
mither make the brish were it is made in leakand.

I have wrother there, no material all metrics.

when I get it will write part out ors.

They what effect valurating graw basic in mall lawger and then gradually dry it before blavery also and dry or any Though lick.

Or any Though lick.

Lawre Respectfully Yours Respectfully

9.5. Your borrespondent is an Old Man yn quai of age on the of of March rest. 1880.

If Patrick! Bay Day |
Tout will am Shish Man.

Chicago, Jeb. 14, 1880

Gold alloys easily Wear In. A thing was brought to my notice yesterday which

it occurred to me might interest you is connection with your conton horseshoe It was a relie from the "great fire" in the shape of a spool of cotton, The cotton nos completely chaned, but the spool was charred still more, so that it could be mind mide of the cotton, I thought you might possibly denne a kint from it,

which would be of value to you, In reading some have since I your experiments with platinum.

I was reminded of a fact in regard

to platinum, that I had long feen consessant with, In making sets of artificial teeth, on platimus, and covering it with porcelain, when soldering the platimen I use have gold. and find that in baking the porcelais at a temperature of 2500 to 2000 all traces of the gold disappear into the plate, and it is estonishing what are amount of gold will then be absorted by the former metal about my that it seems not be see dance as to usually suppored,

London, 4.**G**Isak Kane, E.C. Aille, 212, Rue de Pavis. Burningham, Tel. 16. 1880_ Preselo Park N. J.

J. a. Edison Eyr.

Star Li

We are would their for pour note of 2 th with and be quite see that the present time is too Saily for you to say acceptancy about . The contrast, that when the proper time acceptance you will not from application, and will form in with loose specifications, which he shall setting the an hour is toccute.

We are.

Gres Truly Kloyd Kloyd.

about Letter materies - carbon Horseshors - you were using toh of thest time, was will be at Laboratory at about odock fina Specimens for Tral to meet you with that I amy the your very truly or

I for showed he somehe to see the at that time will gon please telegraph the at my spenies with me the gruthman who prime the bold hearing ledges in Whatoo at the june is

MEMORANDUM.

The Buckeye Engine Company,

To Then I Galaxie Joseph I was a state to the state of the state of

ciple an which itelail light way depends and deviling a system of malying them the result is that I have his upana place which to far as I keeper, is new, lust which will require a good deal of expression ting woods

should have and half the To determine whether it is pateur right of new and practicable, and how it. Capacions additional conmay best be carried out trivames are required you are in a partly better then I to have one their. Condition than I am for always suppuring, of course, such trial and I am wally that my peapared system therefore to Tuna over the is the one used. what mater to you for If the terus and what it may be would. acceptato to you, let me Perhaps a few arraws huser, and I will foliated rout would be that if you complete description any of my our plans are and explaciation, with sinceful without any great modification description of several pater

tatula fancis society which you might be "all to try within 24 Mais very truly B. The war rother A STA EARS AM neptate 2 green then private state of their pornion THE THE OF LOTE SORE WATER and exploringing and level then of so river for ten

Rautical Almanac Office. Navy Department,

Since waiting The combination of finely discited witat with a removalation serbstane.

Have you Tried putting a cheap metut, next too grower conductor, through a year this take calcium, bent so the metal will nut runant when metted?

forus recy tinto l*imou Neiusa*e:

Thowas A Edison

Mute Hunt an Vorheer

Salunte stand Mus Wale

Onch as used for lattering med

Me Matto (Feb. 1980) Per adress this race & write to J. C. Henderson Super . Engano O.R. & N. C. Send by mail to wight -Tracing of Dynamio 1233. adress St Goorge Hotel Philadelphia

250 Horse Orgine proposed to be 1. What is the highest advantageous speed of orgine, that is Mumber of 2. What is the diam and face of Bandwheel- supposed 10 A Siam 30 "face. 3. What is the siston speed -4. What is the Stear pressure Mill Leak dimensions from Your facus for general for general demensions. 6. Could a less wide belt ou larger Diani Bantroheel be adopted without affecting the co Traction of engine.

(Feb. 1880) der for chemicals. Salt peter Bora

Stevens Institute of Technology, Umed 2.1880. ly dem Mir Edisons One of my students Mr Howell, who initia Meulo Pack informed me that you had enforces only a few last left gam has which were in grown ander you that the one in my heaft way he imperfect. I had no idea that the laufe of many farming . Almin I almis of have applied directly to you Southis aniweau office our say about three weeks since , and I then and three weeks seemed, and there asked for it must became it was commenced for me the last of the seems of how here making many experiments on the last chieff or the direction of measure the container of the carbon to that when the container of the carbon to that when the and have obtained many intenting mouth, I you have no objection of some he very happy to have the smith he can happy a row can be been of a few of your lands to contain of acutaing the amount of highly again of definite amount of lactor milion force. Your very truly Michell. Mayer

Binghamten MMck 2 1880 That a. Edison: _ Dear Sir. I are about to build a brick house - have lon dence that the Electric light in some form, will prove a success. How ear or should I bish for gas, and at the same time Infact for the subjection of the Elichic light when same is perfected. Tough the gre hips, if so what head the gre hips, if so what head fred the grain my intraction on your time, which is valuable, Dam aware, but I always by to pro =

Rune suformation from headquestes. Sincenty hoping that you may Ducceed in your Endeavor byine the world a butter light than it has Ever had, & Cheap enough to come within much of the marses, I am Your respectfully Run 2 No 17 Copper wire doubte Covered through allhipers except How Chandelian - wire can be obto from Engine Phillips

Philadelphia Pa narch 3rd 1880-Takkison Eng. Dronkin Referring to paper for carboylizing ! " 13 Crane Sollow mais; is mfgr of bour and silk fiber it as signing -music paper simply immorest in solition of sulf acit is papers - DEX. Lin Sons mideor Locks Come of black hump maulla- Thise papers tran suddenly changes in its fiber - ous structure (Su Walls other - If such paper-Churchy for formula of Solutions) - and would misigno loas so donbles as to cross the fiberous Strue. Throntically - Sum to be improved for cortonizing -clin of the paper and was There abbered together by a Will couper with they brother at Holyoke Signing of common glue boiled in Enhanced milk (whey) matter_ or Skinewed milk which I want you to make would reduce to fine granes your light promaunt corbon, it might prove duriable when added to gluchanger of not already So -This college smides can't duplicate it. Eh? I can see invention in it and you have simplified, any profectir it so as to place it in the hunds of the public a result which involved invention of the most morker character Yours to CE Buill

ngorManufacturing Company! New York McL5tt 1890 Mr Thor A Codison Menlo Park At Dem Ois Dome time since at your request we sent one of Machines to your address for experimenting, in order to keep record of same it was charged to your, and in closing our books we find the 4/2 still open, please advise we if you wish to return the Mach' + oblige Yourstuly The Dinger My loo per St. landenburgh.

Drewel, Morgan'i Ca The Page pakent (which Ray own) for the propose New York Inch. 15th 1880 Friend Edison, Think you Can get loon as the Chance Offers. probably have shortly long fresh regotiations with Re breeken U. J. Co. Islung park of your bassain Ruh the Mr. U. grant you

March VE To So & Storeling. New Encho Me bodien for a feet that leles Bros. howe correspond with your for the week men of your again work here cerais? Where the mountains with any your work of the work when the work with any your work of the formal with a formal to the formal with a formal to the formal formal with a formal formal with a formal forma

OFFICE OF EDWIN M. FOX, Attorney and Counselor at Law,

Mr Moto Please w to all Buttler Me find that the glass Mader carried work the oreast diges therefore person to forme 50 of the Parish lamp Jeast toning rder on candPENNSYLVANIA RAILROAD CO.S TELEGRAPH.

Receded. Office. Operator, o'clk. M. 3/20 1850
From Order. For It Edison

Special special good will give you want any
of your a prosphered week do you want any
with not be better for me to come over
on monday afternoon sandget the
lamps than runth nich of having them

3 shelen by Efforces

13 when

J. C. Handerdan Elg. 20 Namas of Born 24 Will I have to furnish the Sockets & O under stand that Mr. Cary was to have them made a Shor the sample which I had made for him & south him The day after he was here. Please answer avana as Shall do all I can To save Things ready for you at the The weath and it soile. Se some whose Doubtfull about the ground rumber of lamps Prof. Barker Oliverety of Pausa. I Lend you Taday por Expr. 2 cases containing 2 Chandely, & 1 Student land for electric LINKS

Rachester My Mar 22 2188. Thas a Edison Eng Dear Lin: While I Was down task last week I was unostly requested to com-- mimicate with you, '& therefore I do lo happing it will satisfy you as well as them. Some lime ago when itbecame of public interest, your invention of the elistic light-as you now have it, I made the lumant in company that, the electric light in warms was our To years ald, I said this but no intent to prejudice any mo, but I have been applied to for pring of what I said, Imentioned all this to parties who evidently you have Entertained & they asked my Inidians to quit lay legar you, what is referred to defene m an ald English publication, & as I ful emi there is mad such anatter in this carrity I will Cefy for you / you way es), so that you can we at me if it has any leaving on your intuits. as I am an inventor myrey. D'much interested in patients of only do to athers. as I flew Wich athers wanted do to t zono. Jamo respectfully James Waylow In A.S. I have positively referred to allow the bear and for my passession, but for you will copy it of & send for Pleasesed copy - grove Dav

miladdiess (e) scont Know exact address herhapo m. some salvon Walker for

Cleur Ynik,Zi Frof. J. A. Eddion Mento Sant, Ch.J. Sear Sin, I was sorry not to meet Ar Bachelon today and saplain a few matters about the press he looked at when here, and Think perhaps it would be letter for me to cee him before you purchase, It would be intersecting to me and afford me great pleasure to visit nima laboratory, if agreeable to you, ned I would then be able to answer all questions which Mr Cachelor might mich to ask. The principal point is, how long wined you want to keep up a very great pressure. If you decined cay, to Keep up apressing of 100 tone for 10 or 12 hours, it might he well to modify this press in some particulars.

New York mis you and wished to prose for whost time it might answer your for The price in its property shate some to good, but, I think we would have to allow 25 on 100 - more to you The fourth in perfect orders the gened of Tell exactly what it would be fountill it was Thornighly overhauled. St would not exceed 150 - "wo would probably be about 925. to I have already said, if agreeable to you, I would run out any day & meet you and talk the matter over I would then he very happy to give you any information I can regarding hydraulid accumulators. I would not recommend the pump for arrything more than an experimental one, as it would probably not wear well in continual service. It would auswer well for experimenting. Your Respectfully

vished to poor for to do to or to one to find The with sine for offer or do for Many for the by cetty with it would both the it is the former handed but comed not exceed The wind poolably be about 225 As I have already said of a grande to year, I would rain out any day & meet you inde talk the matter over in would then as said property to diese their and interestions regarding haydemelied accumulatores. monded not reconsue the humb for sorything more than an experimental one, w it would protectly not went well in continual services. Dr wined answer very well for experimenting your Respectfully

Renne Depotwert Phila 26 Saturday Sand Wonday Lin J lodging " Do there an

(Eintin Light Tests) Report of Engerments made and results obtained by Professor Brackett and Inform Young in their investigation of the electic Lamp at Menlo raid, miday, March 19, 1880 Constants and Fundamental Expeditions.
On Array gover Equals 33000 fllo framin.
On Nort found equals 1.356 x0 2008
E. M. 5. of a Danville cell ce latin to be 10.099 volte.
of 20 cells is 20 × 1079 = 21.58, leg 1.33 405
W = Elt = E² T t = C T t
Und of E in 101 ta = 10° C 4.5, units

C in Urbus = 10° C 1.5, units . R in Ohm = 109 W in one minuto = C2R bo in erge = C R 60 = 60 × 107 in ft. lbs p. 7. = 44,25log. 1.64589 144.25 is the Constant for orducing energy, 13000 obtained from the above formulae, 18) to Horse Power. (Cy 7.12738) Determination of the Workespended in driving the Dynamo machine. Dallo. Learneter of driving Rulley 38 in. Revolutions per minute 188 Difference of tension between driving and following hanches of belt, as Rugle between hanches of Dynamo N. 7 = 98.8 × 188 × 38 × 1 SEE 18°

mputation 1.99476 188 2,27416 38 1.57978 Freewas expended Sec 18° Of this 5.80 MP. a Quall amount was expended 0.02179 in driving the muchine 5,878 Horatown. du the friction of the degreemometer pully and 33000 a.c. 5.48149 Considerable more lipon that of a countricheft 12 a.c. 8.92082 selevery the dynamometer and machine; 5.878 N.K. 076995 the precise according of this rependation was hear no data for computing with accomacy buffer that it of your failly be solurabled at about 8 percents of solurable as the work so percent. Determination of the Work expended in maintaining the fild of face. Datahended in driving the armatine of the machine 20 Daniell' celle gave a diffiction of 340 divisions with High Residence Talances. 5.59 N.O. Firminals of the coils which maintained the Reactance of coil or magnet was 1.43 Ohm 1. Car Car a Mary 6 16 16 E = 166 × 20 × 1.079 Computation 166 2.22011 21.58 1.33405 340 a.c. 7.46852 E = 10,536 volto 1.02268 2.04536 and the state of the state of the 9.84466 N.P.C. N.P.=0.104 Expended 9.01740 San Mark Brown on maintaining field of force and for a contract of the cont assuming that the feeding machine had the same efficiency as the distributing machine rig about 80 %, the power expudite to pro-duce an efficiency of a low N. P. will be 104x5= 0.13 N. This added to the 5.878 N. Propulsed in driving the distributing machine giors for No. as the total Horse Fower expended, in forther the work done by the distribution machine. 5.72

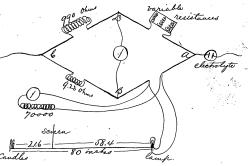
3. Determination of the efficiency of the distribu ting machine. Dalla: High resistance Valvanometa was nadjusti so that 20 Daniello cello gava double deviation of 131 divisions bitteto High Res Gal Firminals of the machine gave a doubles deviation of 622 divisions Resistance of circuit external to armalive (adjusted to be nearly equal to that which it was assumed will be nable) in practice for 60 lamps) Theasured at beginning of repriment 2694 measured at and of repriment 3,00 % The change was caused by the isse of temperature during the Deperiment. Pean resistance assumed 2.95 ohms. Sign of cleethodes 28 c.m x 39 c.m. * Thin of regative electrode 3,358 gm. Cu Resistance of amature 0.14 ohm-Factors - 622 x 21.58 622 2.79379 21.58 1.33405 131 a.c 7.88273 E=102,36 volto G = Win mg. 326 x tim sec W 3358 mg .326 a.c. E 102.36 3.52604 2.01057 0.48678 T a.c. 300 a.c. 7.52291 C=34.934 Webers 1.54045 C = 34335 Webers 1.53573 Horse Fower = CZR x N. P. Constant 3.07146 3.08/50 0.46982 0.46982 7.12738 7.12738 =4.663, 0.66866 N.P.=4.772 mean value N. P. = 4.717 Efficient in distributing machine

Ratio of Energy retilized to that Expended First Delermination Second Stormation MP. 4.772 0.67810 5.720 0.75739 HP. 4.663 Ly 0.66866 5-720 0.75734 (2) 0.834 B Officiency (1) 0.815 Mean 82 percent Ratio of Sungy developed as current to energy Expende. a portion of the Electrical energy developed is nachosaly Expended in the armature of the machine, the great memore and findending the undersporten) by our the total Energy (in almosty the undersporten) by any all all the sheatener of the arrivature to that of the External Circuit - we then get . R= 3.10 olius, C, &G2 remaining as before 1471-146 3.07146 C2 3,08150 R 0.49136 0.49736 7.12738 10.70024 4.901 5.720-0.75739 14 5.015 0.75737 9.94285 9.93281 .857 Mean, 867 Flat is to lar of the source expended in dri-oring the machine of princed appears from our Experiment to be accounted for as elictrical work, while to precent is available for use.

4

5

arrangement of the Electrical and Photometric test of lamp (No. 853.)



Data.

Resolance in branch OC 990 ohm

in branch 380 9.23 olding.

in Migh Kis Ind lusted for distorming

the E. M. I about 70000 ohm.

in branch AB - 1088 - a mean

branch AB - 1088 - a mean

other Orming the laperiment

this measured naisture, M. varied from

10670 6 10700. Achango of oreohm was

early perceptitio.

20 Daniella Cells gave a bouble defection

of 130 divisions with Nigh Kis Ind.

In terminals of the lawy wive gave a

boutle affection varying during the

experiment from 459 to 446 Men 461.

Dain of negative electrone 449,5 mg. Cu.

greation of resperiment 30 min.

bought of scale of proteinets 80 mich.

Than position of moles from lawf when

braspied on 82,4 m. then copy on 49,6 m.

The lawp was Company cuits tied studies and soulds.

4 Determination of work expended in lamp. Resistance of lamp = 10681 x 923 x 701 (neury may) 4.02861 0.96520 R=100 99.7220hm, 1.99879 E. = 461 x 21.58 461 2.66370 130 a.c. 7.88606 1.33 405 E=76.526 vollo 1.88381 449.5 2.65273 This current obtained 326 ac. 0.48678 from the observation of 1800 a.c. 6.74473 the summer of confine aprile (C=0,766 Within 9,88424 alforest Current. The Current in branch arc: Current in bank The Current in branch clave: current in manager branch absc :! (9.23 + 202 (99.721)): 11691: ...

Current through lamp = otal Current x 11671, 700
11780 701

Total C 9.88424 11671 11780 a.c. 4.06711 5.92885 Cinlamp =0.7578 Wrbers 9.87958

Current through lamp computed from the E.M. F. and K. = E 1.88381

Ra.c. 8.00/21

C = 7674 Corbus 88502 In another experiment, rejected on account of a possible error in wrighing an electrode, the results of times MC. from the E. M. of and Reagness very closely with stouristics.

Horse Power = CER x Nove Power Constant 7578 wiles AP. 207679 0777 ispended in a single lamp number & lamps of similar construction which could be run by the machine. 4.717 Effection N. P. = .0777 N. P. = 60.7 0.67367 8.89042 1.78325 0. 8.890-42 1.10958 pereffection N. 5. Photometric test. When the lamp was broadride on the candle power was given by (21.6)2 5-8.4 1.7664 1.3345 squaring .43 19 .8638 Candles 14.6 .3010 1.1648 When the lamp was Edge on the Canole power (30.84) 49.16 1.69164 30.84 1.48916 .20248 Squaring 40496 301 03 Candles 5.08. .70599

δ

Recapitulation of Resulta.

Potal N. expended 600 5.720

N. available for 4777

It sapunded incachlamp 0.0777

Potal number of concludants

which the machine aschus

official could rym

candle foror - lamp broadium 14.6

lamp edge on 5.08

Istal Electrical work developed by

machine 8677 of work expended

Utilizable Electrical work 827

C. 2 Beachese

Princeton March 27, 1840

B Llorong Plan any day I

T. A. EDISON. Menlo Park, N. J., War 30 Goff-Les & Barker & Raper herry ork Cing When will you be ready to tex-

that & believed you would WILLIAM D. MARKS. WHITNEY PROFESSOR OF DYNAMICAL ENGINEERIS Cutainly sucreed in produce my 10 lights of 16 candles (i = soofh firhin of gas) fin HP. My dear sur Ifon will fine Coe Arming Tou a thorough furtherman My understandhig suite Roy Barren the most ax port a feecen as Buson both of Them have has that the expents on Thirough confidence in your your light was to to hoursty of purpose and only Continued Whether or ha Wish toknow the Exact truth Norveme dame, it seems I have Jaco to Roof Bailte that & misunderstord him that Burson That I shall be pleased to you with the word whenter I Cal Armington Eng Bollyn he falls sur that he can Gasto will nich you in a do se without fail. day or two . - I tale Burson & here & stated in your What I had learned luning presence that I do not care my priving risit toyour to suder taken work puthour place + told him alse Lowe 1stein to my est and

That & do not cur to tripe My time away . - My return in the present instance was To have bran with professional or secretific flory for many the right to use all the Knowl tage facure for self and friend We you Know, I do not -Wish to 1784 understood / there for state my norther frankly & Know That you desire the Widest publicity we ought to desire even mon The curate information of me Engaged in the lighting have my huly yours Men THATE

1 Toronto mar 30.8 Sorouto med 30 h fo Mr That A Edison Throwing your willing ness to Extend any courtery in your power to those interested no the cause of science I take the liberty to beg of you the following information Can an electric current carried 3000 feet by a /4 inch copper wine. trave sufficient force, at that distance from the generator to produce anything litte the same degow of heat in an. apravatus which it would at a distances of 300 or 600 feet? Which would be the beller for heating alone a direct current or an alternative current orachino? Would a generation

of 3000 Carrale power (normal) revol. - ved at about 15 or per onmule produce Ruffreient- Electio force - at the distance mentioned - to induce an online heat of all? If you will favor mo with a refly shall astern it an honor for which I shall be truly gratiful trusting at the same hims you will not consider me as both. ering you with needles questions Being arrable to provenso accurrence plaint here Enclose the price of one I have the honor to recuring beny Reply your A W Dingoman Toronto Outario Down of Cawada.

Marlo Park of Manufacturing Company.

Min L. S. Calson
Mento Park of Dear Dir

Low favor of 29 instructived relative to Sewing Machine loaned by an amedian since; as we we destand that you wish to retain the Mach; would say that, you much to retain the Mach; would say that, you much to retain the Mach; would say that, you much to retain the Mach; would say that, you much to retain the Mach; would say

exchange for same, ar we could make good

Nametacky The Dinger Myleso Me Hel Vardenbuyh

use of it.

Gour Javor of 24 and received relative to Serving Machine Goursel by us sometime since; ar weundustand that you wish to utain he mack, would say Mat, you might send an Checkie Per in exchange for same, as we covered make good we of it.

T. A. EDISON, The Warth Bloomfice have been asked a runke. of trues in regard to My dear Edicing light boul meeting a fix not guit layer mough for their word and they contemplate a larger Truly Stall.

Leideisen Madelphia Pa Williams Page and Co was here today and . W. Making Lamps for Columbia with attachment for the We had a talk within and suggested for his lamp his father, making it so that we end conceal the come from view - Sid you within his polar. by furnish any of the complete in south these lamps of a please write us

uniedrately as we pehall make then particularly for a little different a shape to put their fixture - I had an idea that you wanter them all in worder base but can make a number of the as eary Shale on any howmany?
Edison
par 10 archelon

Mar. 1880 Path Celarke Gas Woorke Rohway M & come down to might apparatus albready. Ja Edesor

Dreas Lic Als tel me Know Now you have arranged with Country shape & Hum The Dynamics shall we have to make ancolines right & light as all allitie ? We are finishing - two now Bayora Holy yours

Oli w. To Markle Do you know of a good Jaweller how ist compation ay Doing dome fine work on Plating which is some what like instrum, work if to please let me Ing in a Manyo, far Mor Car. Olo. n 7. Seyman To supl To send our Dynama parts av dans ad passed Ch C

agun New York, ex 4. 1880. (Marila Park) 29 Odean Lin One received your favor of the 12. the pass . wherein you inform my hat here must be a whichake about the promise of the gift of one of your electrice laute to our Broke Souvet while dalling at your laleonatory on the 27 th of Fellmary 1880, & hit whicher wer also Max there much have been but an an all correspondent friend of oury me the Elhand E: of up to skind hem and of the above freentimed lamps, is an me would be very glad to be able to camply with they request, we take the liberty to again apply to you hopking that you will lave the hindrespl to seld up one of he

of this should not be commend one of our found for the ak

Care of Williams, Page, t.C., 24 Beach Street Oca In pens in 'ring' for lamp.

Pretats: We should like to have it as soon as possell Lac. OxalaG

you medell. Esq I send you tests made by Praf B. T. R. wither tool on being made best somefre man - your correspondent named Hall of nay tribung wof that class of abolicy that he couldn't get a tanto Came here Asland all only 20 minute and then write his ling and all from inferences based on inference of the true

1880 - F.L. - Tests

that gaming 1st we put up about 80 lamps the fust made, to asculari the life of the lamps They have all gone out their average lese cons 792 hours the whorlest 26 hours thelonged 1388 Lows, a very salisfaci result for a 1st Exporement) I have never consealed this fact when alany Eurolis I lot it remain where people contrisce it, my Laboration is open where to small or Sneaks ignoranin detective gentling

and I could have easily have wade new lamps and replaced those des troyed and the offen promise of house of Every serible of comes forty had I wished to diccin the The first how was that substitutions. was impossible - I subtinely it, now nothing is said about this improve helely The next havil is that as though I can subdecide the it is nat Economica (- Now Parker of Rowland has pheron that of can afterin

light Equal to the Cest gas gets ablam 13 (16) fording gas jets) perhance paner in Electrically twith all loves about 10 net - Backer using 20 cubic fect of gas in a gas engine oblamed & grant The They light to blood on burny the good he siles gas Lund he only gut 4 lget, one hour after all these seculific Jobs are and they will grabably aroknowled gx. the cheapnes aun gas, but they well day

that the lamps went last or What I cannot make them freezewants

father the main operior

clockwork lamps to be had in the market answer

J C Heiderson St George Holet Meladelphu I dow Think There to

Stock Telegraph Company, Western Union Building, New York, Ope 9 1830 JA Edison Rywould like to bring a friend of hime Caps Frank Bas to ree you tomorrow Pm leaving here ar 3 Pm A wisher to consult is as to the availability of your light- or rather its dural . Vif used to light a floating Livory - He dads mut more than from 5 to 10 Candle power - o can get 3 Horse un tomorrow please zay When roblige yours true Alushing for

346 East 17 thut april 10'1880

J & Edin Gr

wile you be at home on Wednesday must, and if to will it be consensent to admit an artist from Harper Prior _ Orice who will not interrupt or trouble you for more than a munite activo.

your old? I Bellew

Come any time we have have have been for my form

New Haven Com. apr 12 80 Thomas A Odison Menlo Park N.S. I take the liberty to mile to you for the purpose of calling your attention to an improved Dynamometer invented by a friend of mine in this city. I believe he has embodied the correct principle for the most perfect and convenient device for the purpose - It indicates the power being absorbed a used, upon a dial like a Steam gauge - the pointer constantly varying as more or less power is used it- being very sensitive and accurate. I judge it would be very desirable in Connection with your Electric light generators, A you have not a satisfactory Dynammote of your own it might be north investigating New Haven

FRANCIS S.KINNEY, Pres! HENRY A. CUPPIA, Sec 7 & Trees! KINNEY TOBACCO COMPANY, KINNEY BROTHERS. 515 to 525 West 22° St. exion that you would read here one of your wind the profference founts of the Orese ato, come to so you would have no in distinguishing them The putting came again when received, with the view of The expense of a muchanic from here. If you wish the accumulator - companied by an expect, I will white rending at your expense! - Olease advised

A. Elisar Menlo Cank, CV. & Tear Din John De Hat we have this day chipped you by Enna RR, the accumulator, bunke, pipes & connections. Upon their arrival be good everyth to tolegrapoh no and ive will send the me-- chanic at mee to put up the accumu-- laterT. A. EDISON,

Menlo Park, N. J., April 157 1880

To C.J. Housesson It Everge Hotel Philadelphia

Will have two madines and hours language ready for Shipman Monday or before. Sind Direction by Telegraph.

J. a. Bdison

CLA R THE WESTERN UNION TELEGRAPH COMPANY.

THE TELEGRAPH COMPANY.

THE TELEGRAPH COMPANY.

NORTH GREEK, which is to be company.

A. T. BURYCH, days.

A. T. BURYCH, days.

THE CONTROL OF THE COMPANY.

THE COMP

this may was ried about owns after yours was sent Duta Deligion (1) 1880

Detail William (1) 1880

Received at Acheson Meulo park

Char the apparatus for the
Columbia gove to Chester

The philp leaves chester

Watermorrow ausuer

Waterberg (1) 1880

WAStarbus (1) 1880

(DE cannot ship to reach a Charter in time but can have everything at new york morday states can be placed in several poetrs, Edism

Cepril 16, 1880 10m, Send them to Morga . From Works foot with St East Rins so that they will be there on monday without fail

Chester Park The 16 50 1 Killian 10 Mrs Cau M Worgan From Works Winter St T. A. EDISON,

Menlo Park, N. J., April 16 1880.

J 6 Henderson Engineer Stamer Columbia Chester B.

The Express les would not take machine where well you have them in new york

I a Educon

(apr. 17, 1990) Chuse of trip to newsk regard & his enquies chtain problemo in enquicering i face to letter & 2 day . \$ 1.50 Dennie 22 days \$2.20

to previous

E Fabie 88 mice 88 Org as unarrars but were him boar partially lighter triods

THE WESTERN UNION TELEGRAPH COMP. were Careles

WESTERN UNION TELEGRAPH COMPAN PTICE AT

Weather Bureau N.Y. Herald April 26/880 Thos of Edison Esq I f it would not be too much Trouble. Mr. Commay would feel valiged Deyou of you had a small lamp made for him. The batteries used in the School are not sufficient to light the out you have one. Please send in the report of Profi Brackett & young so that I may (expect fully Demar A Pollius N.B. It possible bend ticket for two \$8. Columbia exhibition, I don't know when to apply for one.

THE WESTERN UNION TELEGRAPH COMPANY.

THE WESTERN UNION TELEGRAPH COMPANY.

THE WESTERN UNION TELEGRAPH COMPANY.

TO THE WESTERN UNION TELEGRAPH COMPANY.

TO THE WESTERN GOOD TELEGRAPH COMPANY.

TO THE WESTERN GOOD TELEGRAPH COMPANY.

TO THE WESTERN GOOD TELEGRAPH COMPANY.

TO THE WESTERN UNION TELEGRAPH COMPANY.

TO THE W

I had insented pump that would produce I have since hughet and with this through I am much Contins about - mine minutes Rusting the pump by hand May french is as men pedition denstruction

any only low walves and Things on the authorite of the Cylinder I are moreny The Cylinder If you feel mother in Seerly the founts produce a proper securin in the mounts in a bell glas of the dominions ? Mentin, we will be glad to make an appointment

ON THE EFFICIENCY OF EDISON'S ELECTRIC LIGHT.

By Professor H. A. ROWLAND of the Johns Hopkins University, and Professor George F. Banken of the University of Pennsylvania.

The great interest which is now being folt throughout the civillized would in the success of the various attempts to light hones by classes with expect to Mr. Believin method, have ry attements made with respect to Mr. Believin method, have ry attempts and committee of the efficiency of his light. We deemed this the more important because most of the information of the efficiency of the public in a treatwork prior. We have given to the public in a treatwork prior. We have given to the public in a treatwork prior. We have goined from one however, the summer of the properties of the light to but conclusive test of the efficiency of the light, that is, the summer of the properties of the pr

method consisted in putting the lamp under water and observing the total amount of heat generated in the water per minute. For this purpose, a calorimeter, holding about 1½ kil. of water, was made out of very thin copper: the lamp was held firmly in the center, so that a stirrer could work around it. The temperature was noted on a delicate Baudin thermometer graduated to 0°1 C.

As the experiment was only meant to give a rough idea. We the efficiency within two or three per cent, no corrections was made for radiation, but the error was avoided as much a possible and the second of the control of the control

$$\lambda = L \int_{\frac{1}{4}\pi}^{4} \cos \alpha \sin \alpha \, d\alpha + \int_{\frac{1}{4}\pi}^{4} \sin^{4} \alpha \, d\alpha$$
$$\lambda = \frac{1}{4} L + \frac{\pi}{4} i$$

In the paper lamps we found $l=\frac{1}{2}L$ nearly; hence $\lambda=\frac{a}{2}L$ nearly.

The lamps used were as follows:

-			A more and an a to			
No.	Kind of carbon.	Size of carbon.	Approximate resistance when cold			
580	paper	large	147 ohms.			
201	٠.	45	147 "			
850	"	small	170 "			
809	66	66	154 "			
817	fiber	large	87 "			

The capacity of the calorimeter was obtained by adding to the capacity of the water, the copper of the calorimeter and the glass of the lamp and thermometer. The calorimeter and cover weighed 0108 kil. and the lamps about 0385 kil.

First experiment, No. 201 in calorimeter and No. 680 in photomater; capacity of calorimeter = 1168+090+091=1108 kil. The temperature rose from 18°28 0. to 28°11 0. in fave mutates, or 1°27 6. F. in one minust. Taking the mechanical equivalent as 776, which is about right for the degrees of this thermometer, this corresponds to an expenditure of 8486 foot pounds per minute. The photometric power of No. 680 was 176 candles maximum, or 181 mean, A

When the lamps were reversed, the result was 2540 foot pounds for No. 550, and a power of 125 or 10·1 candless mean. The mean of these two gives, therefore, a power of 513 foot pounds per minute for 11·6 candles, or 109·0 candles to the horse power.

To test the change of efficiency when the temperature varied, we tried another experiment with the same pair of lamps, and also used some others where the radiating area was smaller, and, consequently, the temperature had to be higher to give out an equal light.

We combine the results in the following table, having calculated the number of candles per indicated home power by taking 70 per cent of the calculated value, thus allowing about 00 per cents for the friction of the engine, and this less of A MM. Edison's muchine is undoubtedly one of the most efficient own made, it is believed that this estimate will be found printically correct. The experiment on No. 817 was made by observing the photometric power below and after the caloriboth of the control of the control of the control of the the fiber was round, it gave a nearly equal light in all directions as was found by experiment.

Lamps used in		Photometric power		orte of	ġ∰.;	200	of the second	Total set	and and
Ca)se- imeter	Photo- meter	measured perpan- cloular to paper, L.	Average,	O page 10 pour	litte of persta digree	finding feetpool	Mean particular of clear of	Meas par Charles par Port of Percent	Men of the party o
201 580	580 201	17·5 18·5	13·1 10·1	2·57 2·82	1*-75	3486- 3540-	1000	6-8	4.8
580 201	201 580	38·5 44·6	28-0 88-5	274	2*44	5181· 4898·	204-8	12-8	8-9
850	819 850	19.0	14.3	2·81 2·79	1*14	2483° 3330°	1334	88	5.8
817		17-2	2.73	1*-28	3708	209-6	18-1	9-3	

The increased efficiency, with rise of temperature, is clearly shown by the table, and there is no reason, provided the carbos can be made to stund, why the ambies of candles per more and be made to stund, which can be considered as mount which can be obtained from the are is from 1000 to complete prone power. Provided the lamp can be made other change enough or durable enough, there is no made other change enough or durable enough, there is no protect the light can be pronounced practicable.

In conclusion, we must thank Mr. Bellion for placing his eatile establishment at our disposal it order that we might from a just and utabless detained of the economy of his light.

Fre m Sash, Blinds, Doors, Mouldings. Brackets, Stair-Rails, Newels, Balusters, &c. New-Brunswick, N. G. S. Mr J. A. Edison

Mer. Carnan (apr. 180) The pay J. Bradley 3 oclosek Spanieri White Brigman We spipped the Dynamo 19 Es al No 10 Cattan coursed wire at may Last might To Margan Dran mostles food of east 9 to street not have shipped by PBN freight 2 Dynamo madines for Heance Calumbia, carfully an Roass of And weight afthe the 3300 lb

Mer. Carma (apr. 1880) Write Lagueres & Whiteres in The most urgent way That we should have our Parts for the Dynamo Mode. not having them TUE night a way we are badey delin all they had



School of Mines, Columbia College,

CORNER 49TH STREET & 4TH AVENUE, New York, May 8th 1880 I, a. Edison, Ph.D. Dear Six. Flease inform me when The Lamps you so Knidly provided us with. OF the Lecture they behaved very well - I followed all your suggestions as and with great success. Yesterday somebode Trued to experiment with them, turning too much current and runing four of then, and & have the mortification returning bowowed property broken. he glad to Know that they werl a success publicly - & remain, Nerry Kespectfully

West Point My may 10.80 mento Park N. J. Sear Sir Prof Hendrick me to inguine of you whatter you make or have made at your laboratory the small viewers tirkes, som for illustration before closses,

Is avoid mistake as to my meaning I roughly represent what I mean pos - He tween are jonerally from 3 to 6 wiches long and & 6 1 wich in diameter - PP are flotimum wines furer into the tubes - the flatimin Jointo should be from to 6 5 wiches apart - He tubes as nearly ferfects vacuous as forsible_ verytruty Jamos, He S. E. Tellman St. h. S. Army Instructor at hil cealing

West Point My. My. May 10,88 Lieut SETilluman a may 17 60 Prof J. A Edian ments Park Ng. of the 11th just received. Prof Hudrick directs me to say that he will be very glad to have you muche for him four rosemm trades, if they are not very expensive. If they

are troublesame to make or extensive three will be difficient. He length of the twhe mey The anywhere between three and six iiches - I cllustrate a little more flainly than in my last what is desired -"The flatimine wines do" ahoull not connect of from of to 3 inches. I assume that are millionthe will be a sufficient high vacuum though I els not know how highly such takes are exhauster. Prof ben-

chrick requests that the hell
be forwarded with the twees
made "against the "Chemical Separt.
mant h. S. Milden academy house
south, my." It will greatly
ellize as to have the tropes
as soon as forsible—

Very Respectfact, Jones of
Lt. Lillman

Lt. le & Army.

Que order to Boichen to make

Hamme to brung to.

Say & dielman that We do not man good for sole but wel gue themto he

My plear Edison: May plan Edison: my plear Edison: wanswor to your letter yesterday & would say at you can have the use of my lawyer lamp, of consec. But the one I have has no blass as it was broken in coming). If you are not in a great hurry I will get - Mr. Wallace to put another glass on next week. The lamp I have is the formy lawyer made a year judge from the recent cuto the decentificamerican that form lately, How is your lamp getting on! and what new developments are there? Wrangelling following farker.

PHYSICAL LABORATORY, State Agricultural Gollege. No we donatall thun exet as soon as our new Ames Jova, May 26", 1880. Mr. J. E. Edison deari, funched in 3 mark Thento Park N.J. & Dear Sir Electric Machines of your invention in the market, and if so, where can be obtained? Hould you be willing to to sell me for the purpose. Class illustration one or two of yo Horse ohow Electric lamps "vacuo lomps"? Luck an instrument from Saboratory would be highly prized, as a grate to novelly old here. Very Respectfully Jow's SMacomber

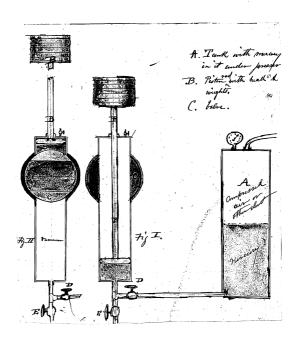
senddory 5) su m 2 Edison mo Etron all ne , ad some difficu carbon loops to ful the un clamp when up marilla fibre It has good pail filter an flat when fibres into algorit any disired shape and I wenter To roffer you the organion most of my engaste avi already be gone over it is difficult to get ahead of your agenus that I give it for what it is Lincordy Yours

1 Hewyork may 30/00 pm A Edicar Columbia arrived Ria yesterty reports Ede

Francis Kinney Simil Sering your latratory I have thought much about bacume " a great may edies of for during high bacum but des not impres as I show acting and

one of your lamps. much would depend that give the most effective direction to the cuir currents. another idea I represent I enclose - and by I try to show a method of Ruping Murcury a present while it rise to out the air Fig. I thours, morany in to a cylinger and fraing Poster B. which carries

may diretty or indirectly Lugged some thing began from an amount or first last with I am from a form and the Some Any thinks I started the started on the started of the st



you are gute muslaben about the Carbon horsestor being a fact With Mahomed Champings Es De June 2/80 Im - Edison Dear Vin I watched with a great deal of nuterest your experiments in your Westine light hoping dinearly that you would breezed, I fett much disappoint Tomer Don heaving that your carboned were a failure, In out a long they Short, & boliver, that I have got the thing that will perfectly aution The purpose, I think Divil thand The est in the spengin without a globe I may be mistaken, of convaryou are botter frapeword to give it a project trial There I am The price of The thing will be nominal, I propose to let you test of to your cutin Satisfaction, but before doing to, your your company must parfactly drew me one my notits one writing, are article of reminil agraing to boy me if my discovery is a lucesos, a value on proportion to the worth of my discorry to edged before a notary Publica.

On neight of such an article & will Sund you my discovery to test it. my nusons for The for egoing propositions on I do not come to go to the expende of getting a patent, and The Thing be a failure, of it is a Lucess I do not propose to be cheated out of D. If I is a Luccess, I will herr I festuted in my forthe brustist of your company, provided my nights are formided for Que meriph you can use your pleasure I make you the first proposition house I Think you deserve In Succeed,

[FROM JOHN KRUESI]

Ch. Portes Co Mr. E. condudad That he Should make & All The Home for our armeatine ne suchase answer from MTw. " on rus enquire Thinking it may of Egraine To your

Van Franciser fum 14 Combi handeled wito Elen scientific progress, the completion of an dynama elictrice motor has been occomplished. A stationer, electric motor of from 5 to 20 hore porresson must creat conciderable resolution and be of great service in regions, where ful g mater is scarce. you above all other will fram your experiments of experience be able to master There questione. It it preside to construct electric mative from for less than the seleam ingine? and how som cauld me officet to have these machines intrasuces a Parson me of I infringe upon gent time, but by anoroning gen mand greetly oflige Bours Respelfally 112 mason Alux S. L. Ox 3piller mos.

ISAAC ROSENSTEIN & CO.,

105 FRANKTINGERREET.

Edison Den che

Howe of a substance of particular incommendately wincommendately of the can be worth in the way as force as first as ships as first and on the worth of the call, retaining of all himses and was able to call, retaining of all himses and was able to carry the call, retaining of all himses and was a furpory of mean least thinky.

If come to be because on himse a mountities and

A can be present in large quantities and as a maintal present.

Sow much will you gove me if:

Solling you ble substance 4000 and you fail

salling you ha substance some and you fulwork prochiably making your experiments and if in fully Dept it on your closhing bounds? However subschilly

Compt. There respectfully

T. A. EDISON. Prof & Algoring Director P. J. When will you be able to make an examenation of the mysterious blue halo in the lamp by the spectooseope Ja Cano " can come down and Examine

H-y^C

his glass contracts in about equal/isade esticia llow the use of a much la Ivon wire in place of Han

This glass fuses etaloutingo & blows even more readily than

Carbono do nat Limbon to have the honour Jours d'Cliveira
1 South Washington Square
New-York

PennsylvaniaRailRoad Ce: New York Division Office of Superintendent: Jersey City, Notime 19 1880 Subject : Lighting depot at Munto Park with electricity Thomas A Educon Esq. Meulo Park, nf. Marchi: Natura your favor of 18th inch I shall be every glad to have you put any number a letectric lights you may desire in and about our Station Militaing at neula Park! Sanhane the permission requested to cross our tracks for this purpose, and any assistance that ine can render to fal cilitate the work, I shall be most happy to give. - Luchelle James Maria OS. Mile yourple conferment ell Ettenger in reference to any detail- arrangements that may be necessary.

Thitadelphia June 19 7880

grit letter of the 19 th January, per towns Expr to your address Telenary 5th , but in I mover heard anything about it since I beg leave to bring that matters to your remembrance and pray let me know whether that package containing the preparation for glass - to make it unfragile by himporary heat and cold or try fluence of the reather Leane to you hands at all? and whether you esperimented with it and with which results Thave lit me hear pully soon about it and oblige

Marsaan Rehmonder Geo. Lune 24. 81 Ks-Edisora I Know not ting at all of science. but I read of you experiment init gritules ext I observe that you are testing different substouces you burners for you lawps - 4 he enclosed grows wild here & is Known as bear gross, tis a pilvor, plantwith leaves from 12 to 20 inches long + will support a greate weight then any vegetable substance I have en secen. loves hed & hackled or prepored Gile here for it would most the strongest rope wer known, or would made exallent saperyou might voy the portion of leaf I sout + try I. Thank him try This rest & the fire is splinly & (Italker,



C. H. BROWN & CO.

→*"BROWN"*←
Automatic Cut-Off

PARTM RNGINE

Works, MAIN STREET.

Fitchburg, Mass Jeely 600

Tofaser J. D. Edward N. P.

One natived in the papers dome

time since that you were going to place a Portion allew Engine pop Smaller singe than the Me you now how; in your sources to displace the one spoorchard of no specially it maybe be poor reall that are spoorchard of no specially it maybe be poor really that are some how and injuries for a strend how laken the stage from Parties in the mean have laken the liberty of writing you with reference to the Spice and if for seals the lower spice as which it touched be bought as how down down is louded to delivered.

Duy har from

and Jung & and Book

A Schowick County 3300 Ms I. A. Edizon Menlo Park Sy. cruible containing some of the glass you waked to test. It shruk in makingfar beyond my expectations but there are your orner & mefalf which I should think would be enough for one lamp. If there is not enough. for an experiment please let me know & I will try & ob-better. I make an invalated wire coil for a way slight advance on the price of the wall will be you wish I will second specimen.

& minain Tours Refly Ernet Greenwood. och plup to brung the

ca a Meulo Park July 14 MeuloPark Elbill you send me at Force by Express Frelow of Lower maintender lamps domestic Size Co. D. Qu Robert Kan Sein- to getyHave none to spare yet_

THE EDISON ELECTRIC LIGHT C Mydearlin This well introduce Mr John J. Thapter Chief Calaineer of the Steambout Dervice of the new Jersey Central R.R. Co who has Carees on as to enquire about placing the electric light on the Companies blate - I have awen him ouch information as I could and at his regnest give him this note that he men care whon you relative to buch details as dam ours Louis

Sothe Ferry July 22, 1880 Dear Mr. Edison Tuesta for you kind which I day before yestery, which I will indeenous to accept some time next week you will no week be pleased to lear that I had belignephic reporter from his Janeiro as well as Valgarias & Voolland strying to the effect that the electric light worked my well. Tokefully your A Willard, for 48,

Ils. Let me Muin whether campedant to to report on the amilitility of water prives in the Mailarhood of Denver & and what would be the for pences

[A VARIANT VERSION OF THIS DOCUMENT FOLLOWS]

EPCO STRAPETE July 20.80 Lee letter book

	Torreson son
(July 26,1880) Keck Cop.	Till services
Gily 24 (500) Keiplop	
IN war delle a cottanto de la	0.0-
I to wary different in the prevent	L.C
af he Explanent to give the Contraction of the Contraction of the can go it was you were copy or	()
Was and see the second	7
of the second of	
cloudy	
0.2.0.0.0.0	
Pegrapments for me bout with capacit	/
regulation for 13 digito,	
Engine & Elichnic Markins Complete 180 100 Lings (25 650) 6 Sockets 73 Wines to of particip Goat 200 Labor running wives selling Engine 50 \$ 2.185	
tan / Compare Complete 180	b
100- (25- Estra) 6	b
dockets 73	
When to all particity Good 200	1
La box running would, Selling English 50	- 18
\$1 2.185	E 30
Jolal Plant, 2185	E 2 2
Depreciation, Engelate	7 6
Informeration Lawyin 80	- 4
Jacal plant 2185. Representa Lango 80 Jacan Rose say 170 322.	/40
If Running 6 hours daily 60 lights 10 Rossopower	
Regimes, 35 lbs coal perhous or 210 lles coal	2
or Six hours, or 300 days in the year regimes, 28	time.
Paryers making # 25.60 as actual Court. Home: Depunish Julius Etc. 322 [Power Jatal Coof goryon. # 497.60.	
Hence Deprenden Julius Etc. 322	A Commence
Jalal Coof gon you \$ 447.60.	

anything for Royally to the Co but this will be reasonable on will will bring the price of the to 60 pail

Menes Pauk n=g. July 29, 80 J. Shapter English Star dir. It is very difficult in the present state of the experiment to give the cost of apparatus will approach closely; Cost in plant for one boat with capacity and Egyppenente for 75 lights, Engine Cleating Machine complete 1800 100 temps ("15 tra) 35 Mies to all parts of boat Tobor running wires, setting Engine Total blant #2 185 Depreciation Engine et + % 80 yearly each law plato to months " I running to hours daily 60 lights 10 horsepour requires 30 lbs least per hour or 280 lbs coal for of hours or Ho days in the year requires

estimated at 8 per year, making as actual cost, hence; Depresiation, interest to 149.60 Total cost per year us 876000 fea . The tanks 3- That nothing can be set on fine by it. 3. That it is not offertal by wind. 4- That it gives no trouble? 5- That it gives a pure monochromic light. 6. That it makes no invostion but imitates exactly one gan get. Legered 25 per for my grose amount higher will down under water

2

in respect to the large lights of several hundred candle power, they are expleneions, require a man to attend Them, are unsuitable, and as the Carbon consumed they disintrigate and throw white hat carbon particles around so that pans are necessary to prevent the places where they are used from being set on fire. these estimates I have not allowed anything progetty to the Edison E. L. Cohur this will asonable and will not very materially It the price. I do not think it will be with the light Equal to that given by I do not think it will being offet of you about 11. per thousand which were used on the ferrices "2 per 1000 would by to the paid, perhaps \$150 per year royally would regard by by by our Co the all the top fruity on the African Afric of 314. yearly askle saving Effectel by the Elistic hight to say nothing of the lossining a advantages ou gas',

of professe to face the farme of a play titles that to move an Each local will some of places of me cappings the lost of motion future of below of the lost first pristing fut up in local for good willingth be 1600 for last want

al X

Boston, July 16 1880 Mmes Pack n. J. the surper notes a macond in our letter of Detenday was not had from our Date by the cluse I am meen herenot & have it paper Ene Shy Hony wisamy God what ded I say to him = guest to Ar N = Malybdum is of no use in Elichnic hight

114 State Street: Me have your fam of is mith your offer to test. Jun Junes & Supply the mont for blutie light, I said you mit

Elecu inform me whether you have chipped overland the additional Electric lights for the Stum Ship "Columbia", which you Sermined Mr Hendurow you would pend, so that they would be there upon the aniel of the Steamer at Portland! If you have not done Ro please do lo at once and funing stronger glasses. Yours Respectfully MH Starbuck Ur have push received telegrams from Capt Bolle , Mi Minduson Saying thew are no lights thew and the Chip is not half pupplied

"Mendo Park A.J. We find, upon inquiry of the Sugar rifiners, that bea and dust from the mines is worth only 1,00, as it contains an uncertain per centage of state. But what is Anovon as harbor screenings, which is the fine coal that collects at tide water and is free from Plate, is ovoith \$ 2,38 per too delivered on dock here. This is baid to be of equal value with lump coal costing \$4,10 on dock Yours Smily Babever Miles

ny ang 30/880 Dear Mr Edison Me Bennett would like to know if your electric lightcould be applied successfully for the illumination of his New steam gacht Polynia. If yes, what would be the entire cost of the thing? I wish you would figure I out fully and write me at your earliest conbemence. I have ordered sentto you a copy of thankers locally containing a des-Cuften of the yacht, which meny be necessary for you fufose. · Please telegrap me on receift- ofthis a line baying you have received this letter . Telegraph me to Perth Amboy, hew day Perhaps Sunt drops in you to morrow

can be applied with great Duccess shall I take the order. It will take six or Jevan WENCE

Janppose he would like screenly for light that shapes on the support on the support of the state of the same of the support of

CITCH HAT GARA

Hava Communicated. your auswar to mr 19 Ennet and will notife you prompetty of his Carning Glassworths Carning N.2/. How soon will our glass own year word bal J. a. adisa

M. S. otug. M. th 1880.

Sienetorine Griffin,

The Glass samples which you sent one for total are not good for any practical are not good to all that glass is too sept, it seems to contain someth when to and impure when blown as disemen out. Jose contains and insure out. Jose contains samples. The handley the little bull is lead glass.

Ludwig H. Bohm.

Conterville Gord Co. Prun; Mr Ja Elisan Rock replication upon mucho wir made to defice Toching in Minus of whinet is a long list working of Electric motors which indulis Franklin not undiver the adopentage Cutabation Talvine Them quint in openating Page Mione and later swind linds from one-Rouse of Tuppy manne - who was Muller Gener Fortier de-Curpenter and Atjahan Del a Whom the world own bunit by branty there mes more than it probably cando be worted from Ever with & Sacoger " one source of supply, und Il- Sums to me That an when wanty esto wire opened advantage obtains of the The Minaming one home an morinse of but 1/10 If arrival motions can be operated from a source of Rupply which is but slightly more than Enough for one motors will be worked as andis yountly as someters namari I have several clauses printing for such we of

: 9. Certinille Pulling 13 00 Third ruil and other adjuncts to Tucks Jours King Prily

19th, statung the failur I am sorry that you har the trouble I send a specimen of iron wire, walled into a common Glass tube & also iron & steel wires prepared for scaling into common glass The steel wire is prepared, with some of the Lane glass I sent you. sealed four wires into the bottom of a common text-tube & hack no trouble as long as I kept the

wire in the centre of the hole in the bulb. The hole should, of course, be somewhat larger than the wiresto admit of envigle elastic material to take up the glifference in ethan sion. If properly annuals this joint will not clark in reheating. The glassyou have been teeting will work equally well with around Steel in the proces
Thanking way or your
Kindness, Influence
Four Risky
Ernest Green Black No. 1.

THE WESTERN UNION TELEGRAPH COMPANY.

SOUTH COURSE, President.

A BROWN TELEGRAPH COMPANY.

THE CAMBO Maskington Over Philadelphia Company.

The Cambo possibly get along with least than these and of with least than these of space of the twenty one half inches of space of the twenty that fields and intermediatel pillow block.

The Cambo possibly get along the twenty one half inches of space of the twenty the fields and intermediatel pillow block.

The Calison

198 That A Ediso Pould - coire fo sle wire I rearch to you but you alquarti

PHYSICAL LABORATORY, State Agricultural College. Ames, Sowa, Wilyest 25 1880. Mr. J.E. Edizmo Theulo Park Jeff & Dear Sir I had The of receiving a letter from in Jone lakt in which you intimate thick in about two promithe spece will be able to Enclosed find and order for which I hope I the wanted find and order for which I hope I you wilk fill as 2000 as they can be supplied, your out for home flow Very Respectfully J. K. Masoniles Anne Jona ang 25 80 J.K. Muse and 25 80

ahas. T. Porter (any 1800) We have sent the Pattern for the Dynams electric Masting & planed to measurment as per entersed setter blue himes indicate where the surface, To be planed. The hace and The two surfaces marked a & b should be particulas grad & in general we hape the cartings will be fair parts To your Engine It is disirable that The sean is as soft as can be used to make a good parting Balooch & Willear sout ng Ware now making up our approximan Estimates for Octobal Station O'sease give is your lowest Estimate on [1200] Twelv humared have power , Bailers with and without Exonomius based open your plane of april 8 7580 Fr (aug. 1988)

Williams, Page & Co Railway & Swamship Lamps, Bumers, Trimmings & Time Brass Goods 24 & 26 BEACH STREET, Sept 15 1880 T. A. EDISON. Menlo Park, N. J., Sept 1880. Monticells Feorida Sur samples came and so forth to day address me here YR Segredor Monticello. Can you go from Cedar Keys to Cuba after you are Storage in florida Ja Edwar Sent Less-8" 1880

Monticello Fla 8 TA Edwar yes will write today full details information received

monticello Fla. Deft do anything until monday weiny hat I could get us or to act as quide for me. Through went into a Remains without a quide monday ebe - is marked no 34 ouls from 4 miles from town. Upsterday I tout hered two The place where you leave the man Road is Known as the 2 und branch of their you havet

Is arives the country for about is ariles. I there my fauts of Clothes with precessions have to purs through several swamps or branchest of the Anne one to get where the large came grows. What renders, this lob extremely interesting is the strong probable of fith bitten by an a challe When are 4 phosonor varietiester I saw a cow which ad past below bitten by a rattlemake The was all awolling twice her usual size I come mean getting can love coming back for Dinois Plantation, In both infrateffice toop the I walked in the middle Comy T last coming back darkers shouted new acovered from our p

T. A. EDISON, as an come there. hearly apprilar in affected to the come you want is often motakun unskilled parties for the Come profer t bothe often grow within a few yards of one another, The Lense the k Kind called writer Came grows on The dryston upland ground among or civer while The red variety y wows in swamp proper This Come proper can be made dender to by cutting or thinning out the corrounding ann get at it ite. for extremely important part is the season of which it is cut when the day has all dryed out. When it is the saule as wood properly cut at the proper of T. A. EDISON,

melet, But I got whatmap West. The more that I gotte information of Days the 153

bane was so large that he saw it used by the fishemen for bat boxe, also to carry water. "The man who confirmed this information Raid be had Know where topiew He was hearly certain itway Ray West. I am Joing As bout file I after I leave the worther your of the class I am from here-lafter to To Chaires Where & have been told in Inchosombille that there was some come From there ? Or to Chattahorches y to brow there down the Applelachicola River. down it to Rickoes Bluff where I have been told they came are by the 100,000

L67

She Tibos Lept 25 1880 Menlo Park, N. J., Cles 25 Rand before the many houth is to get reliated information + the to get this has Caused me a good deal Running Round y down money. I have been to 3 Owanipl where the can was when I hand to green yet branch the thermometer stood bewlen 95 & a low lio white man would go out. twother thing is I have got to hire a findle as coon also a house of his a house of horgon or lanses to ride on It is with folly for one to altempt to find out a place on foot + alone. These all cost beroney of to way one white & higher alike are on the make (1)

in this state, my board alone since of cost at least two very thinly are not Bettlebe but all You Can get any amounty acre & Covered with the all I can leave there is nothing to be goined by going to the Coverdades as levy ofe says There is no and there But will go of you wish the myself It will cost money for John R. Regredon

the P.S. The came in cine barrows places is leadle to be distroyed any time by fire. To accdedly or premided to clear the ground or by cattle being turned in a tre wanter the great trade topour the great tender topo, the how one, when it is barning the mysetular at the Joint to heated the spoint with a point.

like a crifle I have been told it is gibtle a cypet to But he are a came brake of the course bushes but the large or moderate longued to as small greate to a small greate the distribute to a small greate the distribute to some to some bore

G. J. KISSNER, PROPRIETOR Fargo, D. E. Aft 10 1880. ma Edison found lost afring which Will not Burn! Thinking it might you in your Experiences is any reason for send-Very Ker Jours address Van- West

(sept. 15, 1580) Villeanized Fibre Co. Willmington Dol. Ply send 4 Disks of each size enstead of two. I wish To Know whether you Could without insuring the material Dry it & Straighten it. I would if it was not for the transle of the shrinking Is marking adapt the File allthrough my electrical world which will before long be very extensive. Could apon perhaps expen on having at settian perces it & they mittle the warp would be all aid of it Of Caure I should be willing To pay extra for that of you thinks it odn he Dan bloase In it on the Disk Should be glad To here from you about Rupte Ciely TIAE.

Grate Appalachica River Dear Rir. I left montaellot Sufton bey early an last monly morning of arrived at thairs larly the Rame morning. After running around Rome time analy lummy around to get a guide & some medic of conveyance I had to give up my clear of sithing a guide or Konweyne of Seary one here I when Spot I have atu a few nego

becapied by a white Rectu with the or two of exceptions this the ro along Lafayette. I was or Musself Coluting a cutture the section musters house & hig with him (Lo far J that rear equals the Come acro L have not Deen trove it will be,

T. A. EDISON, Menio Park, N. J. The reason why no old come that the people Reto fire to the Come brakes in the bouter time to kill out the old Cane In a chart time Shoots of young care springs up in placed of the oc And in to which cattle are turned in the wenter The cattle are extremely fond of this young care x it proves bery hourishing of fattening as it is the out got pritty reliable information orrobberated that there was Clenty of Cane down on the cella River on the Wassa River down at + below the natural Bridge, at the very ost of Sufferson to Hathan There is no reanstoffething

there as there is no one lives there, I to Would have to him a thought take horse & wason talso a guide I take food the of a camping out fit with me subber books + transector coat for facts Should have these two slow Any one that ever foce down there goes to camp out & shoot bears & other game When They get to the river if they have a boat they as the ile cant use vars is full of caw & M. had ho the expuse accessary togo Que without any mo Brifine & coming on they down that sween where the Niver, once a beek.

The fact is I would like to fund this got as quick as possible There is no pleasure nor prof. any more that thankens the light - It there is a good mething cuitable for lob a want to carry it Throthe ma a cathapelong maliner I have besited no of swamps of what was out to be only reeds no one were wests there Come brakes except consense to cut a fish pole "The rue brake the look exactly alike on the outsile of the swamp to an En no difference in the this weekt that the case grows larger than the reed

The Counties of Care & got from around Souther whe out yet I wode a no of miles my rain along belt of Quamp & grows h feet high when my Jude who was mile got a few feet advance of this I would loose bore the alphite of bei Cane brake for mules aptin getting of may how with it it two out alike and to be any amoun Come alon

T. A. EDISON, bedah key. But I fin assen bout hum bewiter Two places & I will have to Come back the road? Come Please do notfail need some more etionseteto part of the state I used my of I Considered Trustworthy information

[SEPTEMBER 16, 1880] [FROM JOHN SEGREDOR] Res of the e A Brian or - ao Z. From Ellabille Horista attent be v epleterial

3 tout From Lake homeuts of the Butt ands of 3 of no 4 trom Jacksonville Fla visuals of hough falabler fitter and Balmitto fibre brush From Jacksmorte Fla LA ho 3 ample of the ruside of the Banna ho21 2 Tru-kroper - also I The Banner heads also of the Clash that runs of different Bamples from The Bennie no 22 cample of Tify Egy Grass, grow in Porten " (leceptor Planes morelo of what is

moists of suple of through tree undenter · Palmetto Stem co Records & are used Cleus & grows of Richard hot and Thomacksonille The bounds " In 3 ! cample of a plant Russia a down on the Bahama chart Jean Cir. A tras here ranny hearly without stop commenced to clearly to day! we are having the agreemental towns here now, but I has comminged Char up to day I will leave for Inbuticello to ment in to morrow I hope to get down highland and there. After I leave When I will bound & them to sough of the ctale where all the fruit et brows Involvetto to the Port leftice I will leave directions to haved mounded to mea y I he are

Reeds & are used Thems & grows the time Lot and Thomacksonille the bouset " In 3 ! Rample of a plant Russia of grow down on the Rahama Chart Dear Cir. It has been ranning beauty without stopto since I come that the eleanings to day! We are having the agricusores tombs here now, but I has communed to clear up to day will leave for montacello to ment in to morrow I hope to get down highland ande There. After I leave the I will break a find from and the road of the state where all the fruit et from I you wish you can address onto monteelles to me port diffice will leave directions to Twent bordended to me & 49 have bled with the deleproph per muntined by from der any use till Muk, Tyreda

an sh bearing Plenof Beart Brian stand botton Chrubamine bine re Berry Phruh Clis bine 3 Rea gale ravate et

Will Bermy weed of Buc Water 1/18 Lin. (t 11 twood or sterent idue ree mido

Zurnbule artig

tawas Legredo Canes, eni at. Le Trample atleas

K. A. EDISON,

tistroged a very lange leaving 30 author the Bluboo bucho Rootset

T. A. EDISON, Lot 19. From the banks of Appalachicola River Tave from the large humcrow other katches of Rmall that Ramples would the Pare Javerage oots of "The Bleve "Palmette anche of Palmetto

Mol12 Roots of Red Cake
11/3 Come Roots
11/4 Junpolia Root
11/4 Junpolia Root
11/6 Rattof Blue Palmetto
11/6 Kaenola mulderry
11/7 Junes Part of Berk of the
11/8 Robbs of Trees. hamesunknown
11/20 Kamb Good return Lamber
11/20 Kamb Good return James
11/20 Kamb Root when wells
11/20 Hame Chrub Mame welveron
11/20 Kamb Route Mallery Barkey Root
12/5 Couldry Grant
11/20 Robbot James
11/20 Rebbot James
11/20 Rebbot James
11/20 Rebbot James
11/20 Reformate Baryonet

my Hotel expenses date Hom Angust 27 molusive Hotel expenses 3 9 day \$ 78.75 Atlas of Houda Hatchel to Cut cane Guide at Jessup R.R. Fare from Live Coak to Collavelle + return at Lake bites musquito blush for Cample 0 "50 acis & barres 2 "20 Kods for lamples 0 "50 1.00 + Conveyance wice to Cembraplace Stamps 100 85

Lelyrams Conbeyance & quid to 2 mile Branch Stamps Dlaces bisited Roach Plantation Lay lors Planetation abother one 2 R.R. Fares monteello to brifton't return montrello to britten R. R. France Dreftont Chaires . 70 expense at blecins 0.50 R.R. Have Chaires to Zallahassee 0 ..55 "Lallabassee to Bhattatorobee 0 .. 25 0 "50 chicalose River the 12 " vo Both ways

Challatroochee handing 27 15 to Zallahansee / 2.00 espenses at Kallaharren 2 "00 Lelyramsto Ree of there was any littles where I had no Rustage Stamps 1.10 R.R. Have to Baldwin 6 75 Buldevin to bedarkeys 5.50 Boats around bedar , on R. Have bedar Keys hew york to ments Park times Reing about leeping bar

Battimore R. R. Karto Phild-Phil - to Bultimore Hotel expenses

New Mr. ng. left 17,80 Gree Price Oscopt 21,80 I down for known on this it. The inst he informed En How You wanted him to 40 to India to purchase Promboo Jam mier aweit = ing the death of in wife which is momentanty Expect =ted and as soon as the funeral is over I shall be at liberty to go any when away from that place as then well be an further Tres to bind her to hewark and if you think that my just much would be with any thing an

open for any thing no hear from you love matter what I am writing this on my Rome and attending to her as well & Remain fours thuly see price it may appear strange to you that I should write you under the circumstances but anything for relief Leng wife just Expression the wish that the should be remembered to yours as she has one the new one or two occasions and think very highly of her. If you work faithfully and honestly please let me know as I have had a hard time of it for the last few months and am Entrety out of means hopeing & may.

THE WESTERN UNION TELEGRAPH COMPANY But the miles wide Ten long numerous smaller applachecola line quality previous pauples through northern Florida. What orders mailed Damples. John R. Signedere It / collect 1/2 Rate.

Ma 4. Pallahasse Fla 4/25 The Dans Party Mas to Come from Savannas Send other hundred early tomorrow that it can be ordered Aleane Them Same Evening Prio B Segredor

THE WESTERN. UNION TELEGRAPH COMPANY. ALL MONEY SHANDERS MADE BY THE COMPANY. ALL MONEY SHANDERS MADE BY THE COMPANY. ALL MONEY SHANDERS MADE BY THE COMPANY. FOR THE COMPANY TO THE NAME WHICH THE MESS. For the normalism of treating and afters, is assumed to a children of a children shanders of the children shanders are the children of the children shanders are the children of a children shanders are the children of a children shanders are the children of a children shanders are the children of the children shanders are the children of the children of the children shanders are the children of th

Total, . . ______ \$/63.00

THE WESTERN UNION TELEGRAPH COMPANY.	
ALL MONEY TRANSFERS MADE BY THIS COMPANY	
SUBJECT TO THE FOLLOWING TERMS:	
For the accommodation of travellers and others, in emisgeneites, and inciden- ity to destiliate in own business. These Weverson Users Transhark Conversary will easies transfers of shooty, in small amounts, containing no fractions of a solita- tion of the state of the Booth transfers will be made upon the following terms and conditions, visi: To cover derived and incidental services, neckage will be made of one per con- tained the state of the to cock case. So or over, and for enabled associated was seen charge with the state to cock case.	
in cent case and it degraphic service necessary for each immeter exceeds two Associates of 16 works each, a further charge will be made for this service of a sem not exceeding double the tolline on a single message of 15 words between the immeter places.	
Payment of the some transferred will be male at the principal edito of the Telegraph Company at the point designated, upon assistancesy evidence of the personal identity of the payes. The sanding of a telegran requesting transfer of money to its sender will not be sufficient evidence of his identity with the payes of such transfer.	
In case payment is not reads to the payer within 48 hours after receipt of the transfer message by the Manager of the paying office (archestre of Bundays and halitary), the transfer will be cancelled and the amount thereof reclusined to the scader on application at the receiving office, and is such each the amount re- ordered for accretice and total will be retained by the Telegraph See the amount re- ordered for accretice and total will be retained by the Telegraph See the	
A. B. BREWER, Secretary. MORVIN GREEN, President.	
No	
187	
The Western Anion Telegraph Company,	
Received of MOHITAL JUSTIN	
CMC/ALMANCA Dollars,	
toop paid toll MIR Degredur	
Vallaharre Ha	
subject to the above terms and conditions.	
States Manager.	
Amount of Transfer, 8 / 00	
Telegraph Service,	
Other Service,	
Total,	

Zallahassee arrived here last Appalacheole River the full light of the thoir There any amount almost or This river either banks or a short distince one them. The banks are extremely covered with wa all the year round ireapt morn The lever a lettle This Submerged postion covered with trees of brush of cane all the waydom And extends from a furthender Gards in Ame places to mily in others. The generality of the came is so streated (at to be form The lands are to low. There is so much Twants

I musely have had a return of the Lame Rind & had Un The beginning of the Que have been ttaken 2 saw the 6 vesterday eve Aturned for arranging from the They have h before. He Complete ver been at is offeste the Stake bape

T. A. EDISON, 2

I have been told by a no of lafterent farthes I mudich gives of that there was large quantities of Come in Georgie But they fell cay it same quality as the ennous This state of the Come here is not a true Bamboo (Of Course you know a large Damples Sent the are not sent with They will expectation that answer, But merely to Gover all the ground, + show working, It is a great pety some Schuld of wood could not be used the Ray it clastic by ligh prisone watered Steam, Only This would wood inough elastich distroy It Ellaville where at some time ago 19 Domething that rifay interest

T. A. EDISON, all m a li you, It was a fired with great sawdust The roleworthy part that Three he Lits First the flame went underway finally third & flues. + last over the thop of briles to work first They Reented class. The got by murely, the all quantity of was brought the sawde apparatus is the largest will the present governon had a few runnels conversation But 9 did not know then he was governow & got the address of a man who has been all through the West Judia Herough the West India to contiline John R Rep

T. A. EDISON, Central Hotel Tallahause Dear Dir I am out here Just plants of cour bout mod plants of course bout more of the beginste quate It must be solid Vorley gave any mu could give the information I cought it would be you. He had

you had been all through the west Judia isla Junaicalete What I want to know is if you recollect ever having blen any four the bambos came in your , Thes calmeds travels amo to + of so where or y you have dien any very tough pitrous plant falong thand there we your travels Iur "uses it to make odison in electric it. I shall feel gre o & am count to but John R. Degredor



Dear Liv

There is a specie of Wild care that grows in this · Month like of the Island of Jamain that is sold I herry; great quantities can be had. I think however you would save much time a money in cearching by going straight of to the River amayor , where every variety of Cans & reeds grow Some year ago Bamboos were being objected from Jamaien to hew york for paper making but they were hollow a some when split, difficult to compress, the business was abandoned it therefered to Bright when a reed was found that was soled, I are ever the purps your Respect fully as well :

Answer to a letter from JR Segredon

o logaringle

Upsala 25 4 Sept. 1880. bala durlen Japt To Mr. Edison , Ly Mento Sark Ut. S. Dear Vir, That the libert of begg recently published by you. Being occupied with The publication of a Treatise on the modern theories principles of electricity, I have been obliged to enter upon a critic of the Theory of Edland, who asender these electric current to a circulation of the free other contained in the circuit. The electromotoric force entering in the circuit acts similar to the heart of the human body, compelling the other to flow through the entire circuit like the blood in the vein of the body According to this Theory the Same quantity of electric flied is always employed in the same cinemit, then intensity of the current depending

not on the quantity but of the velocity of the other. them to me . I mly with to trouble you for those papers, wherein I wish to point out, that There you have treated the theoretic may be another possibility. If the parts of electricity. current is easied by chemical action, Your important invistigations vig Line and Supplurie acid; the otherest layer enveloping the molecules of the will not only be of the greatest interest to me, but will, as I metal must be distroyed and the hope, essentially promote The other, thus det at liberty, may be accomplishment of my task. obliged by the electromotoric force to partake in the circulation of · I remain , dear Sir , The current, in which case an most obedient fermist accumulation of the electric fluid Dr. Otto Tettersson in the circuit would take place, The dentity and also The pressure Docent at The University of Upsala, Sweden of the other augmenting consequently from the period of a peper upon electricity of recently found, that the idea of electric Corrents of " high pressure, has been into. duces into science by you. Not being able to procue the original papers, I must beg of you this favour of forwarding

Pous aes la Ala Nels 28 121888 Ments Park S. Bons of 21 - unstrud of my "fishing that" I think it is rather above 1 the midium size, of the "Rill Revil" Cane - The founds are Shorter at Longe End - The Tample and you is a whole fint you will notice The tissue hiside purhups you can put That to use, I also Line you a small piece of our native cane aln cut off of one of my rods. I'm sample of Bamon sent you was purposely filed out as the most dreamed - I can guther up about you by They or Dright The pieces are about to or 2 feet long & from 2 to 3 in diameter If you can un it The cost to you will be very little outside of freight say 10 hour cartage of picking up I am wha Scientific man mer have I much

of The "filthy Lucre" but of I can We of any assistance to you in you re leaveles call of me a I you respond Though if there is to be a dimund for the came writed like to have your frice for galling . Some before your Settle on giving The contract out - The Rado Dell here at retail at from 20 1 440 grack according to Fize (Heave you com things of making The frican of a horny tram of cars inful trans Lighting than I) If our care can be used they are plintiful. Ihmed I with Sind I wym or in fact any other shires which comes anyway ngar my Idia of would you would Above The come have to be one in sianne dir igm use it in strips Im R Pury our The com bane I cut The fourt is two so as dalo Sind you a print- (the smallest) of a Thereis of Garden came propogation from roots. The grain is fine and may aumen you purpose of Farce is Large mongh

Lew Spanish Consul Can't do any thing without F passpert from Washington and letters phowing business quantino here against Keywish Jeror There. Havana better come go from menh quicker there mire certain. Am R. Signder 31 Collect 280 7 240 Via Lake ale KyJ. R. Segridor

Gedar Keys

Florida

- All right T. a. Edison Leux Engli Takhon

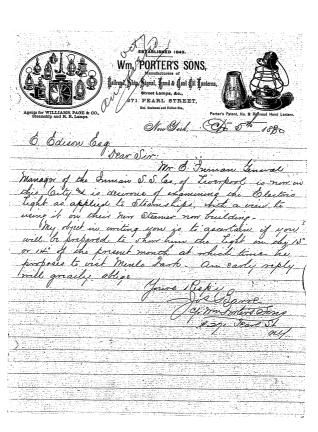
Mess Baberch of Willow. Please Javor us with Setail-ostinates, to sorve in Estimates for our various plans. Long Rollins as planed by Jon to go, inside of 21 It front, I time of telbes, complete. also two of the same with Economic complete, executed in Vow Jork on or foundations fermished Trampipes To Engines, Blowpipe telowers, Jumps, clovators, oralbushers and Stacks to be estimated all seperately.

PLUEMER & BRAMWELL, GENERAL OFFICE: 417 Walnut Strout, CINCINNATI, OHIO, Augusta Cou lirginia Hron and Coal Co. Philadelphia, C light and bery materia

T. A. EDISON, at a boiler pressure of lbo please ship one to me Four catalogue does hot at- whatand out-off you externace the horse-power This we wish to know.

of Lamps and New York, October 15, 180 I noticed on article in The of over Cit, heretopen Some day ago in which it was stated that you had written a description of your blestres bight System for a monthly magazine but I have forgotten the publication in which it appeared. As I take some interest in your successful adaptation of the light by Incardescence (which is the only system that can be of my real bornefit to the Public of deine to send your article and I first be obliged if you will mention, on the inclosed Lord Cand the Aublication in which I confind it. Any motormation is Legarit to the public Comp.

T. A. EDISON, Carman Mito the Made the Bej Glass Glot gordfiest Lamps to my of he can make Oha Plass Chades buch a Lamps & argand lawner - WE Obser want them of special pattern - Will furnish



The Western Willow Telegraph Compan

The Western Indian Telegraph Compan

The Western Indian Telegraph Compan

The Western Indian Telegraph Compan

The State of the Indian Companies of the Comp

39 paid



23 Wall st Wil us ma THE NOTICE AT THE TOP. Mon Edien bear Siv I'll you blease Furnish me with certificate of the test made at your Establishment Oct 4 & Fd Of my Survelator, by givin this your Early attention you mill oblige Yours by Refflicty L. Chiralier addus

N.13 you never a denou by the Habang MHG 180 My dear Edin Swittym by but mail inclosing of the Which Smet for here red all right - I land you by thingers Lamples of love - by the Whitest chies are male cames which have been all 2 months dried in the Sain the short greenish piece was But on the 2nd hov. and has been 24 hours in an oven at 180 F. Than some more Comples Cut and dry male & famile, the finale Cane is key doft & pap and Year will be useless, Caption Baker of King Rindly has taken charge of the Tamples. Mite me fall priteculars of all for may reque I shall said for the hit of San boods by beet mail, The friet day John V. Come here he presented me with a book "Prescott on The Sclephone I find it has your name written in it if you require it School said it on, if not I shall feel oblight to you for it, - In my last exemsion I found dennat huntiful files which with me laye quantities here if they intered for Sean land por on a pero one is Price to Paten which is as fine as sell to being white & throng - to June of & all friends Alexani Jugashul

Menes Park 10. 9. 80
Received from 7 a Edward
By mr Mosso for extenses
on Barabos
\$6. Harry S. Mosso

abendroth & Boot Mingt Co 28 Cliff Str. New York. Jant's Ox Ovr 10. OK Ger 10. of placing Boilors in Building to Suit our other requirements, based on proposals of yours. It would be advisable to place beo. nomizers in the flue from the Roiler in Basement any Eaglestions or Desirable changes to advantage of Boiler settings and their economy in this ease, which may present themselves to You now are solicited. Please give information with estimation relative to Geonomizers and how to aply them in this case Petwol of Mines, 275, 15 Vr Denner Colorado Oct 12, Mayreti - Elutin

Becuer Colorado Oct 12, 89, Aria a Educar Colorado Oct 12, 89, Aria a Educar por tros Brotheria a Captur o Provincia a 1, mor manter por tros defendos a Captur o Proces o Laborato por elejo me de Captur a para mante de Captur a mante de Captur a

12.80 possible of the the second more the of exite com . (Ch. no un etal cell orange to be increased by morroson of the size مهرود اعدموت مع هم دور مدر دور better treatents Ele, bus of we Connect with the amount a occurred the the lumps superfict of oxidation is raised له ولده معلم مو ولد و ولي و وور som the Zuc plache finet ecce, Then there are web-alians set up whenoh have higher rates, as would be che can if (his republic of the oxidation of

F.L. - En duction | (607.12/50)

your Commanden of the - ried - 9 haveneuer problem my pagin that amount to anything on vermande my work has been mostly processed . It is true that There into Duce) the work prevail of 80 struly uncert of Electronic Emporeil for the remain that Effection the Colle is a term few Complished to whole meany and and Cadence prosence to the praper term

In my practical cook That Chromital out for Cam theray of Electronly which I convedued the true one and all my results have been oblamed by and of this then, which is that surply this that. three is a current and. this Current Dan have to valouty war and or decreased by a quality or leaver pressure; that. the Court That if it is diserced to

transfer tomber a millim foot lbs of Energy from one point to another ten melisapoit that a count, of infinite over know many be used and the confe transfound by marrow the volocity of the mean As an analogy Thank we the ellestation of the hammon of foreign a bald to the Gail from and off of to have the If we consider the organish the fact to occurrent the Cumut of the value ty of the same though

pressure. then it is seen that of we use a band I fort wide running at a uclocati, of 1000 feet per minute. culd may transfer say 10 horse pamer of Energy wholes if. we use a Gelf only 6 makes in width and a yelo only of 2000 foot par menule 1 we can transfer the 10 hp of energy so we may continue weaking our belt wite. and incleasing its aclosely until it is a thin as a Dugle spider web. 4 stell halfer the 10 hp. HE CONTRACTOR OF THE PARTY OF T

The power transfund depender Enterely upon the number of oquare inches or units of belf suface passing a given pourt pe minute, so with Electricity the weakest Cuit wing Energy Prince England over the themsel smallest cardner, by morowing the victocity of The odne by more any the prosent, so that a greater number of units shall from a given good in the count in a given their -Thave never used the outher in my theories always considered that att hanofer of Energy

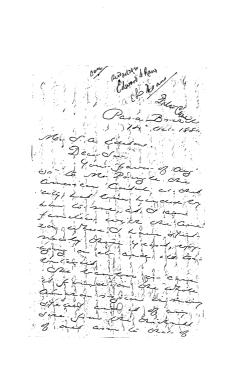
u Every form could be Explained by vibrations of matter as well-as the How matter in matter although of rotione lightness Come 6 = Cransferd through denser matter at the Enormous belockap at which Elichary flows of cannat Concount but comid concern it haumissen by ochration very easily. The Oxidalian of Zmc in the air produces r brating of light, The Oxidation in a Galley must 60 the same only under suffrent Conditions

hence there must also Gez vehations, These vibation. must necessarily be down. than that due to the rial and hear of Cowert, refranges. toby - = of meadda I think it was De ha Rus who by weares of a m monor proved that the light in a greater title

If we take a single cell. the reapedity of oxedation afthe Zue u that cell cannot be increased by increasing the sign of the plate or by the use of better Excelents Etc, but if we Connect into the amount a seemdcell then the lange propedity of oxidation is raised by the action of the other cell open the zmc of the first cell, Then there are vibrations Set up which have higher rates, as evaned be che case of the rapidly of the oxidation of Zuc un air was musared bysome means, very buly your

Tak

Department of Rublic Works Bureau of Bamps & Ga Room 21, Lity Hale I will be glad to call on you . manho book, on batunday afternoon now ELECTRIC MERCHANDISING CO., 76 MARKET STREET, Chicago, Sct. 14 1880 de. a. Edin Er Beat SJ ; Coile you some me gent interest ave l'arie de you so





Compared of the Control of the Contr

Miss autiset of the state of th

48. South Street our correspondents at Ris Janes New York, Och 14 1880 eaving that they would affect to the Bambor sample Tear Il Friffin immediately. It seems that the cane is to be offered Several friends of mine. from the interior of the country are desirous of seeing Mo Edison the bleching light -I write to ask you if it would be agreeable to him it I should take them up to Mento Park on Medresty evening next, 20th inch. -Please favor me with a reply roblige Long mily F. I. Mhave a letter from

T. A. EDISON,

Menlo Park, N. J., Opt 12 1880.

Received from 7 a Edina one hundred & Jefty dollars on ap of bendan trip \$150.

John R. agredor

here I have been the lookout for Bankon but have been unable to find any quetty Steam Columbia which has just arrived in port, the which the part in want

Palace R Columbia Las a fair se talked are favorable to (2J

John your system that the sailing vess which the between her court ise are very tree best stock barrile on fitie supply La Loi Letter Li when of git Bamboo san cos do split

Les Capt de la serie de la company de la com

SO CEDAR STREET New York, Och 188 My dear Edisin I blaneyrist made a (to me & startling Is avery. In lovering ont of the window of my office, I saw directly officile in a room in The Equitable Building, planly visible from here, persons making mir Electric light Even I write Leated at my lest I can see and There was south git, your vacuum pump with a your hands

billiant in candescence and then with a spirit lang seal the land, exactly as of have seen it done in the laboratory, I can see the N shaped Carbon as plan as I am set this paper. On nathing the Did avery Immerdially, and my Bookkeeper over bue What Kind a place it was. He came Galet X reported that I well the agice of the U. S. Chetic hight les ... Dedyn Knew This If not can't it of forme importance to you

EXECUTIVE OFFICES

→#/Hibemarke Ferthizer Company,*

PARSEN JACOL TRANSPORT THE OF CON Josh, 1888

Z

RINE it is a clean information of a clean and a clean a c

nom is a Close pipe when a man is augusted as make

the tollow. There are 15

or 20 people in the room and the all are affarant at wind throwing wein

in shirt cleeves, seem to he handling corbininged febro pret as I aline seen Bachella do dundred times. The four supo in Candescence It spor Know about this aonse you to look into it . The Whole Establishment is directly shorte mercening Why in the name of all hat good dent you reply to my letter. I have with Jin two. areyor coming in to newfork American Satural : If not Can I have a lan late with you at you on Surlay. Please lite.

Dear Lir. Treparatory to an intented visit to you, I would inform you, in advance, of the purpose of the same What I wish to discuss with you is this . Would you agree to assist me (as a partner) in bringing out a magneto-electric machine for generating electric currents to be used for electric lights, telegraphing, electroplating x c. This generator is intented to excel all other generators now known in Europe as well as here. It will be constructed in street accordance with scientific, mechanical and economical principles, in such a way that a steam or other motor will produce, by it, the most possible current. I have built in a cade way a small working model of this generator, and my expectations of it are fully realized . This most efficient generator, no doubt, would inable you to sell electricity to consumers for a great deal less than otherwise you would have to charge,

Mr. Thomas St. Edison.

and still have more profit left for your com pany; the lights could also be a little larger than gas jets - all these advantages would greatly assist the introduction of your lighting system. But what other profits could be realized by the monopoly of the best generator "! This generator will in Europe be just as valuable as here, and ought to be patented there; also; but that requires an oillay of money greater than . my means would allow me, and so I have to look for aid. I thought you to be the right man, as I know you to be, in the highest degree, capable, enterprising and trustworthy, and I only hesitated, for a while, to make you this offer , because I feared that your just ambition as an inventor of " such world's renown would not permit you to associate with another inventor (and patentee) . for the purpose to accomplish your great enterpaire - the adaptation of the electric light for domestic use. Thould, however, the interest of your Congo. be of higher importance

to you, then, by assisting me to construct the most perfect generator, you would soon be able to you to the north the light they have so long been saiding for, and give it deep sarryly too. I am certain that a personal interies will still things all eight, and esquest you to let me know int what time I might east at your place, or, should it be important to you, if you will east out my house.

Expaning soon a forward amount, I camain your the property form of your still form of the time of the same of the

Philadelphia, Oct. 23:50.

. Afaren en (vom 20 jun): Bef. Char T. Throch , Levens Indibiota, Hobohen. A. M. Shushte, Manager of "Public Ludga", Philis. De. Morenty, Indibules of "Philis Demicrati. 9. I ... I'm stale in your article in the "Morth American Neview" of October, thirt you have adopted dynames for "magnetor". That is to say: you have you the rake of from sainces, substituted botter your retended which makes me hope that your will adopt the best of the generators, superiolly if you can be come purily owner of them.

Then you say in the "Review" that the amount of elactricity annumed in each house will be registered by a sort of meter. But that against miles described and illustrated in Personers Monthly of Iderary, with not be practical, and I feel quite cartain that you are of the same opinion now. In my himse time, and for uncurrent sake, I have worked out the idea of soul a meter that will perform its but faithfully without galvanic deposits of acide and without mapater is the excels it wights the current with grief accuracy and agrices the same. The principle involved would also make an excellent galvanentic for

other use, working in about the same way as a bacometer, or as a stramgaya, by pressure. I gan would adopt this mater, you could have it on your own terms.

You further say in the "Nevier": "Men are being trained to execute all the details of the introduction and working of the electric light sysem " - Now, even in this respect, I might do you some service by offering for your employ two of my () sons (21 and 19 year day one now employed as a printer, the other as assistant to a chemist), both can use their hands cleverly in almost any kind of work; the older, especially, is a good draughts man and passionate amateur-cabinetmaker (he made for one the Patent office model of my generator), conceives quickly and thoroughly any kind of machiney knows a good deal of electricity, and can speak and write English, German and French. No doubt, you could well utilize his talents. He dislikes his trade (printer), because it does not afford him opportunities enough to exercise his mental faculties.

This brother might be useful as a clerk; he writes a clear, mercantile, pleasing hand (see his letter enclosed) and possesses other good qualities for such a position; or he may be particularly useful for introducing or pushing things through, being in no wise timed or afraid of anything, he has prepossessing manners, and, when required, can use his tongue very lively in English as well as in German Both young man do not know that I write in their behalf.

. wish I h wwwsth wW

It offerds me great fileaune to inform you. were is rolle becomitate a week who redisplaced was last anxious to trave your light introduced in his place, and evast ät älätivast tuennum a ref trin bluru reilläf ynn taski with this we as a fame fame, as we all triber they are the best for that fur fine. No doubt, your stickie light ni nyoldure was it philip long fort, ala, bloom testing ungerty the pharicape. Heave, thirty of refer but is we won have your light.

With high extrem your

The as generally is the manufactured from the state of th

is, Imas in hopes of alla them before the last week church fair along with

be able to gather for the occasion of you would let me have one or two only for a mech or ten days I whould be greatly abliged, for I am many deserous of making my collection an attractive as Forth as an instructive one Thuly M. C. Iblang. Ush in Physics WILLIAM FORTERS SONS.

The Park Sphan D. 267, 50 Deck

Men Sir Vill for be kind a cough to vend

the lamps for gure to the forman of the

Once. of he forman the forman for border

later for the forman the forman the

promised to the forman the forman the

promised to the forman the format the forman the for

J. S. Bonnald, Sup't.

1881

Buckeye Engine Company,

BOUGGESOTS to Sharps, Davis & Honsall,

Also Common Silde-Valva Engines. Saw Mills. and Hall's Chinale Machines.

Balem, Col. Co., Ohio, Oct 26

We see by the papers that

you are going to balifornia next Needs, ban you not find time to stop over a day or train at Salem? We will need the promised drawing of a dyna-

need the promised drawing of a "dyna= = mo" machine to which the engine is to be attached if we are to go on

and build one, but besides that there are other points on which a little

consultation with you would be to our mutual advantage.

Me have a plan of engine now nearly perfected which is a modification of the regular automatic so far as alates to the balms and gear, the former being both light and easy working and the latter consisting whiply of brocks passing direct from small eccentries to the values

without the intercention of sockershapts. So get eccentrile as small as possible (4 in) they can placed on auxillary short in 1820 (Monthern)

Havana 27 Edison

John dead vomito
Telegraph instructions

Butter

Bury him my expense.

My dear in Jan without any of you fa or reply to my letters of the 6-1 13- + 20 a or astronomer of Sumples Sent Which Shope you of face time more which Schall and who the Banking house of these Placed hear Jack Who lath fine you a receipt habe you the knoble of buying sechange hath regards to all & hoping your

Aubuna Oct 28- 1888 Proper Thin, mento Park Pour lies bis, I tely you justed by the death of poor John Legado & rec your reply which immed, which to I delayed the lived & Kept the body on ice thinking perhaps that his friends wight wish It, butalised, Ifed the despert regret for his loss though only a recent acquartance Spring how a very gird fellow & most energetic trave in his endiason to carry out your ideal & work & some his arrival I devoted all my hime to former his reliebs tymes & during his others I may day Theor left him & did & had long thing done for him that was possible, I had the two beek Physician (yellow ferry) in Habana & Burgess & Doctor Belot, also a first class nurse and a man to assist, no separse or house a affection Was spered I even Called in another Sochin Almiral and before he arrived John has dead the doctors declare if one of the Severet & mon birlent Cases the have loss seen. and day that he was predisposed to it from having Suffered from malicia & positivitas also from The fact that he was circlartly taking lecensar Roser of Janime (Lulp), hi deposed himself very winch to the Sun and Lat very heartily both against my advice on Nathaday after Completing his Enceporedure + Alboring on bour the Stenner Newport" a mocking Rind adder to you he lance to dinner with me & affected here well lating hearlify, afterwards he came

With me to the thester, and Sligh him at his door about 10.30 fune duner time until hed time be drank to lemonder and a holli of Joda water, (he was boy moderate in druck talling nothing and a little thing and Lager beer I where he was tolking long lold sunter Standard him, but he has a special temper of his own, self willed & his willy did as he through fil; at about 3 a mi on Sunday morning my servant talled me stating that my friend had sent up a mercujar saying to was being ill, I steeled immediate, der him & unmidiality brought the Dieler Burgers, where Case and attentions bes keyind everything history three & Some him four lines a day, he dictained it a very lieue gave one very little hope, but heard the tonce the case the more Care + attention is required - Sprocure a first note english spenking hurses & a hum to sesit I took Origin & gain alf my burners & excepting & remained with him all the time only getting encor two hours of Sleep tack high to the their told Buyen to hear a Consultation to Called in Relot who is The medico of the Julion from Hospilel - after wards Landed for pesh Curallelin, he Celled No Almeral - the fine Stowne Amind for John has give - at about 5 of on Wednesty hirming he died being trangail and without pains of Misa prisoning Ineed not repeat his differey but of it is any linealsteen to how I his friends it he bore pres duk of the States he lould not have received Jum attention Kindness Salledical attendance nothing was spend, lit alone the regard had for him Homina Charity & trasidired you also is this matter Kane alak & Buid in the day the

when ho died I had him put air and I telegriph you as Sthought perhaps his friends enight wish him die balon - to me rich of your reply be bired him, very decety some friends of him attended and that the spirafel denice red by he Betanound of the American Constitlate -Shit a him haire & Castlet mornings to Shad a quest fast with the people in whose house he died, who forted his to like the body way immediately and Charged me for the bed it bed elother which they also Mestry We Retainent of the Emedale lame to loke will sand the Vallie by It addressed to you -When he arrived here he deposited with me Floo in american gold price which he dreed 40 in two payments, and on Laturday 25 for a Bird termin in his hands \$35 Gold & I found in his portest after he was taken ill Is Gold & 115.25 in Spanielo Riper. Which dans Share placed to his credit in the general ye, Sinclose The original receipts & documents, buch as are in spariety paper & have reduced to gold & Alang Thank you at four enricht answering to remy The Carrie of there was some samples of lacis Allig he cut but is they were dirty & infected with Fruit to from heing under his bed Shad them Matined Ishall and you since diplicates as som as Some time out to cut them he had a fack Minite & ace which Shave Nept Wo deplaced perfectly to me the line & Slight of Care you require and likell look it up I shall have Cut & dried in the Sun also

I have being you and out to his Segredon I could have dine all you regaine, I don't think the Lord would think it worth his while to Kill nie you remember I was so strongly under this unfor that loffeed to go up the "Attato for you - make me a fin apper & Ishall take any risk-It Ratchela & mac that I cannot forget that howith from joke I made in my note to them of my seeing from John Through the mill " I hittle Thought when I wrote it that it would prove to Sally true, however my Custime is perfielly at the And Jan Sure That neether his father Brother or Undest friend Could have heated him more Kindly - or taken bear Cure of him, beader Reeping him from danger as much as was in my power I have past these fine days almost without rest & in miserable anticly & I felt so ill yesterday they I began to Think that I was in for a dose of firm So much so that I consolled the Doctor & look medica Sam better today, he kowan heade me have my Clother to world infection - so Shaw hem physic -& funigated & bathed, There is much bounts here at present and Cases late in the Season he much mon fitel them at any other time, I lost too priends this mouth, John is the third -Sind me out fell inchrections and I shall try & falfill & Carry out all your him of broads of the Seland all different their They here append to the Bulish maken for sooos it is the takons of a life of 45 years - every the on the Island trucking the miller with core he hought buy cheep

they are part of the Collabor of a Celebrated by Received the pieces are Small about 3 mid buy 3/4 mide Think & spirite polices on our side to chow the gram ende 11 mirlid bolowied have to 4 to soon-fild, Istall be glad to hear in our fatel Than at day THE FACILIE + Carred out ale Luchechen Some Son Commence of history of the Saland all all the opinion See sport to the Butch mound for Topped it is the Lovering of a life of 45 years - buy the on the Stand

of effects of Mo John Segreda -This inventory is the en in presence of N VA Butter And ME Lawrence Betanchest american Consulate of this bort. Havana 28 th October I one leather Valise containing as follows: 5 Live shirts 2 two pair socks one somb one pair sus penders 4 four hand kerchieft I two other pair socks. I one Smith & Wellow revolver I one cloth coat 1 one box cartridges 4 four books 5 five black cravate I'one broom brush 2 two boxes -collars & paper Various sundried consisting of note po rayor, shaving brush, elactic, pencils,

SOUTHWARK FOUNDRY AND MACHINE COMPANY,

The Porter-Allen High Speed Steam-Engine.

PHILADELPHIA, CLO 18 W. H. MERRICK, 1991, and Treat C. T. PORTER, Vice-President. G. A. BOSTIVICK, Servicey. C. B. RICHARDS, Superintendent. J. a. Edward Eg 2 at hand. At the country were and to be country with hise ne would from he the bed on what dayas tis recan fourth Ha Wednesday chip it at once on com= pletin - The presume it duce 1 wear 12 PC R V South WARK TOWN TO BE IT

156 Phila nor 30-80 Www. Taylor My of kneess, which must please brengtody whose interest is not approved I do not understand from your Whole that you have Het made your hammer chamber moreholde. If you hall pardon

, the engyestion & will day that I think it possible to make a joint Must shall be figherthy imperturns salt presence of the strong while and also allows free expanding and contraction of the points, and without liability to micate with por father. Respect win barty Taylor & Catabridge Mars Nov 32,188 Harran armenty Cam bidge Mass my learner of the strong I enclose a slep sh. met my cyc recently . In sais stated that you have a number of South age who go have sejected. Jam my decense of getting a dynamic beautiful the frame to the thought hatt that perhaps you migh defulling to sell one of your second hand I rant a machine which can be run by a gas engine of from one to three horse power + mel furnish an cleatine toyler. (voltain are) for projections - Big brutos 400 to 600 Pandle poner. hufortunately the Physical Laborations

of the Tollege with + I cannot afford a reference machine Sur Surfy amener will greatly others me Regulting to take up Jun Valuable time article is incorrect high spice Engine with Memain Why form. Dingle dynamo, revita Min J.A. Dison frhow rowbidge Harrand annies ty slarge Engine Munter oble in Host time to ace Cambride hears you with a small machine. the rest of space seemed Sunday men for a new trade of france. · design care . It was it is a friends is from one to these horse poor to hill principle is resilent top's. der ingestant in face support was the wat or is a way and high . The filter that the playment of how have

Lambfield Carliste England with a few brief particular as reques the Electric light in it application to Stad and the king of reclaming and land by the test of a river where I could get an obsertent site for water privace and as there a few town new some 3 of 4 miles and large town about 20 miles I would like to know what distance it could be made awileth a the land reland would relige got presence for intent and capite of good beautiful investigation be formed of formed beautiful investigation be formed of formed 6 months of made of med grand to and know I made grand the beauty you broke to all know who the hours you proper added to and know who the hours you broke I remain the whole he will come cat you hand

Hoboken M. Nov. 4.80 Henry Marton a Nov 5.1860 Stevens Institute of Jechnology, Mov. 4th 1880 electric lawys and would be more of your recent his same sime, in which results in a paper on the general rulyect which an preparing to read Soldenny at their comi

meeting. Grow statements value of every thing you I have been in the papers accomplish as East as each result is reached. I judge that you may be Very Leuly yours dark warrender and rebus I have some interest fixan worrall wins Ol eial or other, which might bias my judgement unfavorreligionships for whom is ashy bourable byour esports in developing the mandanish selection between the above the source to above you that this is not the dos horas so for tot-lawson case and that my feelings ormer Now is about 140 ok .. o Lowards you and your regimes 3400 ft folds, 10 pains 16 labors are altogether of condees - I let it, how below the most friendly description and trad for our will be test you have soft trade me concerty not The reasons who I cannot follow more ready, than & to alknowledge the full

Chas Brown VE method please inform uswhether of those would be auf difficulty apreding up our engine to 75 Revolutions for a short time only.

Hos Q Edisa Ments war Marin in Monday west away 450 Cb, will are what it wie

condles in good one of the brief and, Sinc brief and, Mater Fiely CP Auntium

S Hobollen Nov 8-80 Itemy Morton Stevens Institute of Jechnology, HOBOKEN, NEW JERSEY. Sum-une ed to you for your note the 5th while I have just take great pleasure lamps and have no doubt that my measurements will Athough there have been Mindy wards third person I have not been able to agree with your findous pressed in some of our

daily hapers, it has been my inhention to express my dissent or opposing manner, and & think that you will kind that I have accompanied such state ments with an expression of my high appreciation of your personal abilities & Seel sure that the warrende infression you have received must be the result of some mirunderstandily, and if you will kindly flount out sherifically, in what I have proving ways all of blemses. I feel confident that an explanation will clear

up the difficulty.
My orly mothe has been a deside to check the extraviance of certain ignorant and interpolation from the damage which their exagerations seemed likely to occasion.

Tend, Moston.

Cambidy An 8/40 my Har dir I thank you very much for your kind & promps anismer. You Express the hope of being when to furnish me with a yourse. madine in the future. It's not desire to press you in the maller. bes of your could state how som I might spreaton & it what price you would

Confer a great favour.
Regulting to trobbe on whise times
must be as valuable
Memain
They smenty

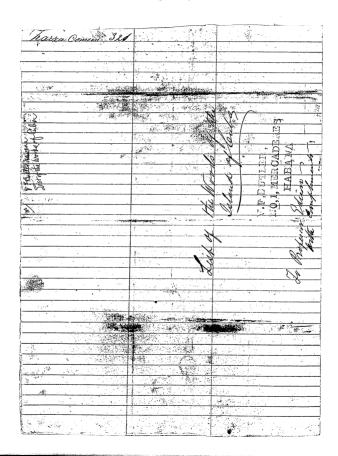
TATAison Milan C. Bullock Sign 84 Market Sts. Chicago Il. You will much oblige by favoring me with information concerning the high speed engine which you are using, as Tam informed; or by directing me to the best dight speed engine per T. Horning.

mento Park, my dear Sir Institute on the d' het fromas. by Nazara Samples of Cane Which Shope pin have received safety, I Jales wrote you theweek prisons relative to death of John Segusor towards As The Share houck newly; Sendose you lick of the Collection of Butan Words some too hiffined The Collector was the Lete Treferen Sansage Who Speak all his life in mesting this lotteding he was the but Botamiet here to a particular freed of hime, they are how in sound hands and if you make a per of for littley intered you) I think me might procure them. you go are idea of what Ju in willing to pay of I will hig & work it fryn I send you a busular of the metanjas which his history if you think of Strating my thing let me throw in time Willy regards byon the boys Reman Juneaguy hus Saw much obly for Variable of Soinglass but The Japanese has other queliles thus the mession has not-

			high world the beautiful to the	- Line
	Mohon		Bourte	Conderancello Manco 13.4
<u>.</u>	Aceje.	anasille 2	Baria 3	8 Gualanicillo 12
é	Heeli h	embra 3		9 Coqua 15
1	Avida	Canca. 4	Bia .	10 Salsa Corneally 16
i.	Runda			il Creston de Colle 177
10.0	Hroma			Q Cuala blanca 10
No.	Retillo			3 Cerelle de Cesta 19
i	Paracejo	ø		4 leden 80
ř	descrip	de dalana	Brasil Degre s	
	Quida	Omarilla si	manu sugar s	Caimitelle 82
	Maarrete		-6	Copey 83
7	_Ugusreve _Ulmends		Cali d	6 Cerilled Loma 84
	_Oumenus Ablemends			Y Curbana 85
	Mame S	Energy 11.	Canisteli -	18 Pisio 86
	North Section S	15		za Lewise
	Neana		10000	6 Ciquaraya 88
		a Florida 17		51 ledre mure 89
	Abian de		111	52 idear hembra 10
	Skulejó	19	1.0	a west removed 12 -
-		e Sabana 20		64 Camagicisa; 92
			1.0/	
	Musfaifa		16	55 Cardan 13
<u> </u>	Mejifle	2%		66 Casbillase Cista, 24.
	Agaila,			67, Caoba Blanca, 85
	1	Vimaria &		58 Cordobancillo, 96
	Mama an	rarille 25		59 Cocupe de Sabana 12.
	Measolo	26	Castesia	60 Guaba de ingenie, 18
	Recitere	22	Capula 1	61 Lenaba amarla, 99
	Mmencho	Mande 28	Locuse .	2 Cera amarillale
	Mimiorii		Ceiba -	
	Balo		dellan som	
	Ales	31	transfer to the second of the	
	Rusuia		Circuela carrechava	
	Mmendre		Gireela cimarra	
	Men mac		Circle a comarroia	68 Dobla una 10se
	vivey and			60
	. 103	44 1 3 1 1 S	Curja. Curbana mache	to Change 104
	Basin	36		1) Encore 106
1	Bazuda	49 2 2 2 2 2 2 4	Lugha amarilla	
تنسا	_ suguaa	100	uara, umasilla	ic svano carbonesti 107.

Aprilla de labalhse 102 Arisia Gente 152 Sia Blanca 188 describe 162 Signification 188 Signification 189 Signification 1					-	
Encine 189 Salon de dia la bequi de Lay 181 Rijelide 18 Granacitle randestr surare Paiste 183 Selectionea 18 Granacitle randestr surare Paiste 183 Selectionea 18 Granacitle randestr surare Paiste 183 Seria de Petro 183 Gateado Paper 186 Graba Blanca 183 Gateado Paper 186 Graba Blanca 186 Herrisa Concrena 186 eden de Sabana 187 Graparari 186 Herrisa Concrena 183 eden de Sabana 187 Graparari 186 Herrisa 183 Secreta 189 Graparari 188 Herrisa 183 Secreta 189 Graparari 189 Herrisa 183 Secreta 181 Graparari 180 Herrisa 183 Secreta 183 Graparari 180 Herrisa 183 Secreta 183 Graparari 180 Herrisa 183 Secreta 183 Graparari 181 Herrisa 183 Secreta 183 Graparari 183 Graparari 184 Salonina 185 Secreta 186 Graparari 185 Salonina 185 Secreta 185 Graparari 185 Grapari 185 Grapari 185 Grapari 185 Grapari 185 Grapari 185 Grapa	2 Chucla de Caballes	108	Guisa Sande	ldidi	Sia Blanca	180
Birelille Bireli		109	Galow de dis	145	Secui de Les	181
Rejelite III Francabille raschier Success Price Pas Selecturia. III idem (Amerille 150 Securio Pas Successor) Par Sur Allestonia. III. Surializara Peris Securio Par Surializara Peris Surializara III. Surializaria Peris Surializaria III. Surializa	02					
Electronia III isten Amerika 140 Sacruma 180. Sin de Se Sincom III Surainon 180 liaquille 180. Surta del Perro III Gateada Ingre 180 liaquille 180. Surta del Perro III Gateada Ingre 180 liaquille 180. Guaka Blanca III Fluira Comerca 180 esten de Sabana 187. Guapura III III Ingra Bernara 180 Suria Rocalle 180. Guapura III III III III III III III III III I	Bisielille.	110				
First John St. Quality 180 Singuille 182. Senta del Pero 183 Gattada Ange 180 Gunta del Pero 183 Gattada Ange 180 Gunta Blanca 118 Gunta Comment 181 Laure 180 Gunta Blanca 118 Gunta Comment 181 Laure 180 Gunta Blanca 118 Gunta 183 George 180 Gunta Laina 118 Gunta 183 George 180 Gunta Laina 118 Gunta 183 George 180 Gunta de Sala 118 Gunta 183 George 181 Galan de Sala 118 Gunta 183 George 181 Galan de Sala 118 Gunta 183 George 181 Gunta de Sala 183 Gunta 183 George 183 Gunta de Gunta 183 Gunta 183 George 183 Gunta de Gunta 184 Gounta 185 George 188 Gunta de Gunta 184 Sacuma 185 George 180 Gunta de Gunta 184 Sacuma 185 Gunta 180 Gunta de Gunta 184 Sacuma 185 Hangia Gut 180 Gunta de Gunta 183 Gunta 184 Gunta 185 Gunta 186 Gunta de Gunta 183 Gunta 186 Gunta de Gunta 186 Gunta 187 Gunta 188 Gun		111	iden amarille	: 48	Secuma	1824
Guara Manca. 1th Guisa Comerono 15th Loten de Stabana 187 Guara. Guara Manca. 1th Micros. 15th Serginante Macell Guara. Guarani. 1th Micros. 15th Sergina. 188 Guirana. 1th Manca. 1th Manca. 15th Sergina. 1th Manca. 1th Manca. 15th Sergina. 1th Manca. 1th Manca. 15th Sergina. 1th Manca. 1th Manc		112	Guasima	149	Siagnille	
Guara Manca. 1th Guisa Comerono 15th Loten de Stabana 187 Guara. Guara Manca. 1th Micros. 15th Serginante Macell Guara. Guarani. 1th Micros. 15th Sergina. 188 Guirana. 1th Manca. 1th Manca. 15th Sergina. 1th Manca. 1th Manca. 15th Sergina. 1th Manca. 1th Manca. 15th Sergina. 1th Manca. 1th Manc	Fruta del Perro	113	Gateado Dea	e 150	- A	1 1
Guara Manca. 1th Guisa Comerono 15th Loten de Stabana 187 Guara. Guara Manca. 1th Micros. 15th Serginante Macell Guara. Guarani. 1th Micros. 15th Sergina. 188 Guirana. 1th Manca. 1th Manca. 15th Sergina. 1th Manca. 1th Manca. 15th Sergina. 1th Manca. 1th Manca. 15th Sergina. 1th Manca. 1th Manc	G.		Suise Cimar	con 151	Jaure	186
Guarani Marica III Aliga Abunda 183 Shaira 1889 Guarana blanca III Aliga Abunda 183 Shaira 1889 Guarana blanca III Aliga Abunda 183 Shaira 1811 Guaranga 180 Shairani 181 Shairani 183 Shairani 1813 Guarana da Saba III Shairani 183 Shairani 183 Guarana fanna 183 Shairani 183 Shairani 183 Guarana elastica 183 Shairani 183 Shairani 183 Guaranada Andre 183 Shairani 183 Shairani 183 Guaranada Andre 183 Sacruma 183 Shairani 183 Guarana 183 Sacruma 183 Shairani 183 Guaranani 183 Sacruma 183 Shairani 183 Guaranani 183 Sacruma 183 Shairani 183 Guarana 183 Sacruma 183 Shairani 183 Guaranana 183 Sacruma 183 Shairani 183 Guaranananani 183 Sacruma 183 Guaranananani 183 Guaranananani 183 Guaranananananananananananananananananana	Guaba Blanca	112	Guisa Cinarre	a 152	eden de Sal	anally
Guarani Marica III Aliga Abunda 183 Shaira 1889 Guarana blanca III Aliga Abunda 183 Shaira 1889 Guarana blanca III Aliga Abunda 183 Shaira 1811 Guaranga 180 Shairani 181 Shairani 183 Shairani 1813 Guarana da Saba III Shairani 183 Shairani 183 Guarana fanna 183 Shairani 183 Shairani 183 Guarana elastica 183 Shairani 183 Shairani 183 Guaranada Andre 183 Shairani 183 Shairani 183 Guaranada Andre 183 Sacruma 183 Shairani 183 Guarana 183 Sacruma 183 Shairani 183 Guaranani 183 Sacruma 183 Shairani 183 Guaranani 183 Sacruma 183 Shairani 183 Guarana 183 Sacruma 183 Shairani 183 Guaranana 183 Sacruma 183 Shairani 183 Guaranananani 183 Sacruma 183 Guaranananani 183 Guaranananani 183 Guaranananananananananananananananananana	Guara		146		Lenguade &	acalle
Againage 110 Hama 155 Sire Prance III Sance III Hamadasama 154 Off Sance III Hamadasama 154 Off Sance III Hamadasama 154 Off Sance III Hamadasama 155 Siercus III Sance III Hamadasama 155 Siercus III Surveile IS Siercus III Surveile IS Siercus III Surveile III Surve		116	Servese.			
Salan et lessa 119 Hayabacama 156 Alexens 112 Supple de Press 121 Hayabacama 158 Alexens 112 Supple de Paris 121 Hayabacama 158 Alexens 112 Supple de Paris 121 Hurs de tertuga 162 Alexens 112 Supple de Paris 112 Supple de Paris 112 Supple de Salar 112 Supple de Sala	Guama Clarica	112	Heja Denuda	150	Lebrer	190
Salan de Sola III Hayakorana 154 Jaka de Depse 181 Hayanile 157 Harana 183 Juaparan Lance 182 Hayan 158 Harana 183 Juaparan Llance 183 Hayan 158 Harana 183 Juaparan Lance 183 Husehoth 158 Harana 185 Juanadille 185 Husehoth 158 Harana 186 Juaparana linke 185 Juana 168 Harana 186 Juaparana 186 Sation 160 Meangh Pricts 187 Juaparana 186 Sation 160 Meangh Pricts 187 Juaparanaille 187 Sationa 168 Harana 180 Juaparanaille 181 Sationa 168 Haranaille 181 Juaparanaille 181 Sationa 168 Haranaille 181 Juaparanaille 183 Sationaille 187 Haranaille 181 Juaparanaille 183 Sationaille 187 Haranaille 181 Juaparanaille 183 Sationaille 187 Haranaille 183 Juaparanaille 183 Sationaille 180 Haranaille 183 Juaparana 183 Sationaille 183 Haranaille 183 Juaparana 183 Sationaille 183 Haranaille 183 Juaparana 183 Sationaille 183 Haranaille 183 Juananaille 183 Sationaille 183 Haranaille 183 Juananaille 183 Sationaille 183 Haranaille 184 Juananaille 183 Sationaille 185 Haranaille 184 Juananaille 183 Sationaille 185 Haranaille 184 Juananaille 183 Sationaille 185 Juananaille 183 Sationaille 185 Juananaille 183 Sationaille 185 Juananaille 184 Juananaille 185	Guaisage	118	Hume,	155	Lire Biance	2 181
Surgabe de Casu 18 Maja 150 Slaigua 182 Surgabe de Castir 182 Statule 183 Slaigua 182 Surgabe Station 183 Statule 183 Slain 184 Slain 184 Slain 185 Slain 18		119	Hayabacana	156	SE	Δ
Sugaron Slance 112 Martille 150 Illaron 121 Suma clastica. 123 Minor de lateraja 150 Alaicegi. 125 Samadille 124 Machoth 181 Alaicegi. 125 Samadille 124 Satia. 160 Minor Mich 181 Sagury. 160 Minor Mich 181 Sagury. 160 Minor Mich 181 Sagury. 160 Minor Mich 181 Sugarana 160 Hungara 800 Suppon office 161 Sagury. 160 Minor 161 Sunaja 801 Suppon office 161 Suppon 161		120	Huesille	15%	Horona.	112
Sama clastica. 183 (Russ de Statega, 180 Alaicegé. 185 Samadille Ut Mandalle 185 Samadille 181 Alainage 186 Samade (Ut Mandalle 185 Satia. 180 Meanage Color 188 Sacruma, 183 Mercise 188 Sacruma, 183 Meanagea 186 Suagea	Guayabe de Perce					193
Sama clastica. 183 (Russ de Statega, 180 Alaicegé. 185 Samadille Ut Mandalle 185 Samadille 181 Alainage 186 Samade (Ut Mandalle 185 Satia. 180 Meanage Color 188 Sacruma, 183 Mercise 188 Sacruma, 183 Meanagea 186 Suagea	Guagacan Glance					184
Granade Aule 125 Josia 160 Microsoft 111 Junean Granal Color In Juneapacani 128 Jacuma 163 Microsoft 112 Microsoft 112 Juneapacani 128 Jacuma 163 Microsoft 1128 Juneapacani 128 Jacuma 163 Microsoft 128 Juneapacani 129 Juneapacani 129 Juneapacani 129 Microsoft 120 Juneapacani 129 Microsoft 120 Juneapacani 129 Microsoft 120 Juneapacani 120 Juneapacan	Gama clastica.					195.
Jateada Amarille 128 Saguer 168 Microso 168 Juagacan: 128 Saguer 168 Microso 168 Juagacancille 128 Saguer 168 Microso 168 Juagacancille 128 Saguer 168 Microso 168 Juagacaniari 128 Samura 168 Microsoft 161 Juagamaria 181 Sacuera 168 Manajia 161 Juania de Costa 181 Sacuera 168 Manajia 161 Juania de Costa 181 Sagueri 169 Mananille 211 Juani Carra 183 Sagueri 169 Mananille 211 Juani Carra 183 Sagueri 171 Marguera 266 Juani de Sey 185 Samura de Costa 268 Juani de Sey 185 Samura 168 Juani Mananica 186 Juani Mananica 186 Juani Mananica 188 Juanicima Laria 181 Juanicima Laria 181 Juanicima				151	Glamas,	196,
Guagacan: 128 Sacuma 163 Herrise 168 Guagacancille 128 Sacuma 165 Herrise 169 Guagacancille 128 Sacuma 165 Herrise 160 Guagacancille 128 Sacuma 165 Herrise 160 Guagacancille 181 Sacuma 168 Hangin 161 Guamai de Cata. 181 Sacuma 168 Hangin 160 Guamai de Siesiai 133 Sacumin 160 Hancanille 211 Sumai de Siesiai 133 Sacumin 160 Hancanille 211 Sumai de Siesiai 133 Sacumin 160 Hancanille 215 Guagacance Carrise 185 Sacumin 161 Hancanille 215 Guagacalla 185 Sacumin 161 Il Hancanille 215 Guagacalla 185 Sacumin 161 Il Hancanille 218 Guagacalla 185 Sacumin 161 Il Hancanille 161 Guagacancancilla 185 Sacumin 161 Guacancancancilla 181 Sacumin 163 Guacancancancilla 181 Sacumin 163 Guacancancancilla 181 Sacumin 163 Guacancancancilla 181 Guacancancancilla 182 Guacancancancilla 183 Guacancancanc		,				
Guagacancille 128 Suguey 180 iche Pricto 180 Guagacancille 128 Soimigue 180 Heuroga 180 Guacamari. 121 Sucura 168 Heuroga 180 Guapanoidich lista 181 Sucura 168 Hamaja 181 Guamita do Gierra 183 Suguei. 189 Hamaja 180 Guamita do Gierra 183 Suguei. 189 Hamanille 180 Guama do Cora 183 Suguei. 180 Hamanille 180 Guama do Soy 185 Surmingui. 180 Haraguane 200 Guala do Soy 185 Surmingui. 180 Haraguane 200 Guagabella 188 Surmingui. 180 Healea 201 Guapabella 188 Surmingui. 180 Healea 201 Guarana barin 181 Surme. 186 Surmingui. 201 Guacima. 181 Surmingui. 188 Surmingui. 183 Healea 201	Gateade amarille					
Guagacancille 128 Suguey 180 iche Pricto 180 Guagacancille 128 Soimigue 180 Heuroga 180 Guacamari. 121 Sucura 168 Heuroga 180 Guapanoidich lista 181 Sucura 168 Hamaja 181 Guamita do Gierra 183 Suguei. 189 Hamaja 180 Guamita do Gierra 183 Suguei. 189 Hamanille 180 Guama do Cora 183 Suguei. 180 Hamanille 180 Guama do Soy 185 Surmingui. 180 Haraguane 200 Guala do Soy 185 Surmingui. 180 Haraguane 200 Guagabella 188 Surmingui. 180 Healea 201 Guapabella 188 Surmingui. 180 Healea 201 Guarana barin 181 Surme. 186 Surmingui. 201 Guacima. 181 Surmingui. 188 Surmingui. 183 Healea 201	Guayacan.	125	Sacuma	163	Horisa	112
Guaramari Lasgun oldate Sista 131 Sacruma 168 Hangia 202 Guarama de Cesta 131 Sacruma 168 Hangia 202 Guarama de Cesta 132 Sagueri 168 Hangia 202 Guarama de Cesta 132 Sagueri 168 Hangia 202 Guarama de Saju 133 Sagueri 177 Haraguaram 206 Guarama de Saju 133 Saimigui 177 Haraguaram 206 Guarama de Saju 133 Saimigui 177 Haraguaram 208 Guarama de Saju 133 Saimigui 178 Haraguaram 208 Guarama de Catarrisa 138 Sagueri 185 Haraguaram 208 Guaramarilla 133 Sagueri 185 Haraguaram 201 Guaramarilla 133 Sagueri 185 Haraguaram 201 Guaramarilla 133 Sagueri 185 Haraguaram 201 Guaramarilla 134 Sagueri 185 Haraguaram 201 Guaramarilla 185 Sagueri 185 Haraguaram 201 Guaramarilla 201 Guaramarill						
Guaramari Lasgun oldate Sista 131 Sacruma 168 Hangia 202 Guarama de Cesta 131 Sacruma 168 Hangia 202 Guarama de Cesta 132 Sagueri 168 Hangia 202 Guarama de Cesta 132 Sagueri 168 Hangia 202 Guarama de Saju 133 Sagueri 177 Haraguaram 206 Guarama de Saju 133 Saimigui 177 Haraguaram 206 Guarama de Saju 133 Saimigui 177 Haraguaram 208 Guarama de Saju 133 Saimigui 178 Haraguaram 208 Guarama de Catarrisa 138 Sagueri 185 Haraguaram 208 Guaramarilla 133 Sagueri 185 Haraguaram 201 Guaramarilla 133 Sagueri 185 Haraguaram 201 Guaramarilla 133 Sagueri 185 Haraguaram 201 Guaramarilla 134 Sagueri 185 Haraguaram 201 Guaramarilla 185 Sagueri 185 Haraguaram 201 Guaramarilla 201 Guaramarill	Gulaban,	129	Jaimizua	163	Murava	200
Juagamailie Corta 131 Sacrima 160 Hangie 200 Juama de Costa 132 Sagrica 148 Hangie Birt 200 Suranio de Sierra 133 Sagrica 148 Hanamille 201 Juane Coma 132 Sagripalice 12 Hangiano 205 Juaga de Say 133 Saimigui 17 Hangiano 205 Juagabilla 134 Samin de Colingo 12 Hangiano 205 Juagabilla 134 Samin de Colingo 12 Hangiano 208 Juagabilla 134 Sagricale 137 Hangiano 201 Juagabilla 139 Signi 125 Hangiania 211 Juagabilla 139 Signi 125 Hangiania 211 Juanamanda 139 Signi 125 Hangiania 211 Juanaman Laria 141 Juana 127 Hagagua 211 Juanima Laria 141 Juana 127 Hagagua 211	Guacamari 1	30	Pasmin de punta	Se da	Hamenoille	201
Guama de Casta 132 Requei 168 Hangé But 200 Suamito de Gieria 133 Requei. 160 Hanaville 244 Miare Coma 134 Regajabire 10 Harte 205 Guara de Ley 133 Calmin de Color 12 Harte 205 Guapa billa 138 Regaine 160 Harte 206 Guapa billa 138 Regaine 160 Harte 208 Guapa billa 138 Reguire 160 Harcuri 208 Guapa ba Calerrize 188 Reguire 160 Harcuri 208 Guapa ba Calerrize 188 Reguire 175 Harcuri 208 Guaranomenila 139 Reguire 175 Harcuri 201 Guaranomenila 139 Reguire 176 Harte 160 All Guarima Laria 141 Incare 177 Haglagua 201 Guarima Laria 141 Incare 178 Magnera 2013	Guazouncito de Corta	131	Sacuma			
Suanita de Sinsia 133 Ragueri. 169 Hanamille 214 Suane Cana 134 Sagajabira 10 Harte 265 Survea de ley 135 Samin de Super 12 Harte 265 Guagabilla 138 Samin de Super 12 Harte 268 Guagabilla 138 Samin de Super 12 Harte 268 Guagaba Calerrise 138 Sequialle 138 Harte 268 Guagaba Calerrise 138 Sequialle 16th 12 Harte 268 Guaramanialia 139 Sequialle 16th 12 Harte 261 Guaramanialia 139 Seque 126 Harte 16th 261 Guaraman barin 141 Juguer 127 Harte 16th 261 Guarima Larin 141 Juguer 128 Mannen 218 Guarima 141 Juguer 160 Guarima 1				160	Manuel R. 2	203
Quane Coma 122 Tagapabas 12 Histo 205 Quane de lay 135 Taimique 121 Histoguane 206 Quane de lay 135 Taimique 121 Histoguane 206 Quanabella 135 Samen de Color 122 Hacusi 208 Quanabella 133 Sigui 125 Haguisa 110 Quanamanilla 133 Sigui 125 Haguisa 110 Quanamanilla 133 Sigui 125 Haguisa 110 Quanaman basin 141 Juane 126 Hande Cola 211 Quanima basin 141 Juane 125 Haguisa 211 Quanima hasin 141 Juane 125 Mannen 113			1.	160	Wanger seem	211
Guara de Say 138 Saimiqui III llicaquane 206 Guara 188 Samin de Girip De Hista 207 Guarabilla 188 Samin de Grip De Hista 208 Guarabilla 188 Saguialle Esta 12 Hacusi 208 Guaramanilla 188 Saguialle Esta 12 Hacusi 201 Guaramanilla 188 Saguialle Esta 12 Hacusi 201 Guaramanilla 188 Saguialle Esta 12 Haguisa 201 Guaraman basin 181 Guara 182 Slaguagua 201 Guarima. 181 iden Omarilli 18 Marinen 2013						
Guagabella 138 Samin klististe Micha 201 Guagabella 138 Seguialla Cità Macusi 208 Guanamanilla 138 Sigui 118 Magansa 211 Guanamanilla 138 Sigui 118 Magansa 211 Guarama Sasia 141 Guana 128 Magana 211 Guarima Sasia 141 Guana 122 Magana 211 Guarima 142 isten Amarille 122 Magnam 2113	Curas de Seu	195	ayayaowo			
Guapabilla 134 Ageneille 13 Halea 128 Guapaba Calerrese 138 Sepuialle & Sita 124 Macusi 289 Guapamanalla 139 Agua 126 Majuria 281 Gia Blanca, Ant Lique 126 Majuria (1514 Sill Guacima Laria 141 Jugas 122 Majagua 211 Guacima 142 Jugas Comarille 122 Magnan 2113	China and the					
Guapaba Coloreisa 188 Sequialle Cota Ma Maccisi. 208. Guaranamenta 133 Sequialle Cota Ma Magnesia 180. Gia Blanca, And Vique. 186 Manuel Cota 2011 Guarana basia 141 Manuel 187 Magnea 2018 Guarima. Mai iden Omarelle 188 Manuel. 2018						
Successmental 130 Signe 125 Marie 286 Sign Blanca, 180 Signe 126 School Esta Ell Guacima Laria 141 Jugas 122 Magagua 216 Guacima, 141 iden amarile 122 Magnen 216	Quanto Cotoricia	130	Saprialle Que	10.	16 carea	
Gia Blanca, 1ste lique. 186 Adonde Cetta Ella Quacima baria 131 Gucara 187 Heglaque Elle Guacima 142 iden amazille 182 Mannon, 213	Quanamanilla.	139	Pioni de CHA	130	reacuro	201
Guacima barin 141 Rucare 122 Haglagua Ill Guacima 122 iden amasile 122 Marnon, 213	Tio Blanca	140	Piarre.			9/1
Guacima 112 iden amasille 112 Marrow 213	Guacima Lasin	41	Pucare			
	Guarima !	42	iden amasill	110	Managera	213
Summer or nogal state st	Character de decen	13				
	Summa on Hoya	1		-4.77	mazaguulla de la	12.801

- Allegade	in the second	7		
Marian de Stemen	0.44	02 601	250	Sahote 285
Hange		Pinipine		Sauce Amarille 280
Halagues		Litafini Cimarr		
Manuic de viria		Piñ or Scal		Sabina 289
Soangie_do;usia_	218	Pamaria Silocs		Succession -
	200	Susaria surses		
Mora deli pari	<u>220</u> 22.1		255	Inneauin 280
Maruse Obey				
Mortoure.	222	Pitagani.		Tapa Camine 29h Tamarinda 29h
<u> Ha canguería</u>		Plane trice.		
Marañon.		Panasi.		
Macagua,	225			Sengue 295
		iden Blance		U.
Mora,		ison de Virrae		
- Hiji Marado		Ralma Suta		Uverille 294
Mangel		Rice do Gallo	264	0/ 0/
iden Beick	230.	- S. S. 1		Viera 298
Ho Gallina	231		a,265.	Vigueta 188
	an 232			iden Maranja 200
	·			Viciona 301
Naranje Delec		iden Real	1	Varia Carboura 302
Naranja Presisa		Ramon de l'Esta		
Naranja Olgria	235	Roble de alex	2.69	Samuguay 303
Nararina	236	Rolle	200	Jamiela 301
Nogal Crielle		Rascabassian	271	Jaiouage 305
		Raspalingua.	279	Gamei 306
Couje O.	220	Rompe Sture,	273	Hava 308
- ceye	100.	Hetama	241	Seace 308
Gine del pais	230			Sagruma himbo 309
· Cline de Géa		Roble yego		iden Paache 310 Baka 311
Gine	241			Baya Ginarsona 12
iden Blance			218	
Vimiente.	213	idon amarilla	129	Jama 3/8
Pesafio		idan Guisa	280	
Peregrina		Mann Conu		
Jalma Reali	246	<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>		Jamar 31
den Bassigona	212	labiou	282	Hait hemba 318
Peroleja de monte		Salite Culebra		
Platanille	249	Sabina	284	Yaya Simaroon 33.0



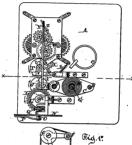
Stated & Similar you a patent for smpnes meter for Electric life. I may bear examination rif of months produced the formation.

2 Shoote Shoot

B. F. CARD.
Meter for Measuring Electricity.

No. 223,112. Patented Dec. 30

Patented Dec. 30, 1879.



wanesses. Doublossf James C. Smith

Inventor. Bujanin Floord

3 Sheets-Sheet

B. F. CARD. Meter for Measuring Electricity.

No. 223,112. Sid. Patented Dec. 30, 1879.







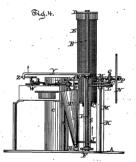
Inventor. Benjamin Floard

3 Sheets-Sheet 3.

B. F. CARD.
Meter for Measuring Electricity.

No. 223,112.

Patented Dec. 30, 1879.



Witnesses. Gruis W Forest Inventor. Benjamin Feland

UNITED STATES PATENT OFFICE.

BENJAMIN F. CARD, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN METERS FOR MEASURING ELECTRICITY.

Specification forming part of Letters Patent No. 223,112, dated December 30, 1879; application filed December 14, 1878.

To all whom it may concern: To all whom it may concern:

Be it known that I, BERMAMIN F. CARD, of
the city of Brooklyn, county of Kings, and
State of New York, have invented a new and
useful Improvement in Electrometers, of which the following is a specification.

The object of my invention is to measure or determine the quantity or intensity of electricity by means of the mechanism hereinafter

The invention is based on the fact that a bar or rod of soft untempered from placed within a helix through which a current of electricity is passed will be drawn within said helix by means of induction; and it consists of a helix and bar so arranged that, by means of induc-tion, said bar will be drawn unward while the carrent is passing, and this notion of the bar, by means of mechanism hereinafter explained, causes the revolution of an index-arm over a measured scale, the speed of which is varied by the position in which a friction wheel is brought in contact with a friction cone, as will be more fully explained.

The construction and operation are as fol-

lows: the accompanying drawings, in which call the later so of solvense indicate little parts, Elgino 1 copresents a plan or toy view, partially in section. Fig. 1: shows the arrangement of the balance-weight. Fig. 2 is a front view, partially in section. Fig. 3 is a cross-section in the line X X, Fig. 1, showing the bearings of the cour. Fig. 4 is a site eleva-

tion of same.

Rigidly secured to the base-plate A are two metallic standards, B. Used in connection with these standards B are the two bridges C and D. The bridge C is made so as to slip. over the standards, and to be placed at any required distance from the top of the stand-ard, forming a shelf or rest for the helix E, and is adjusted and held in position by set-

ring of sufficient size to admit the upper part of the belix, so that when bridge D is placed in position on standards B the belix will be held firmly in position. In the top of bridge D is a hole that allows one end of the wire of helix E to pass through. (See Fig. 2.) Sliding on the standards B is a metallic plate, F, on the upper surface of which rests the iron bar G, which is made of soft untempered iron, and does not become permanently magnetized, slides within the helix E. On the lower end of bar G is formed a collar, which is loosely of bar G is formed a collar, which is loosely fitted into a piece of insulating material, which is rigidly secured to the metallic plate F. Also secured to the metallic plate F is the kneepiece H, which holds the vertical grooved shart I, to which is secured the friction-wheel J.

Journaled in the base-plate A is the vertical

Journaled in the base-plate A is the vertical
shaft K, on the upper end of which are rigidly
secured the gear-wheels L and L. The upper end of vertical shaft K is journaled in the
The distribution of the control of the
The distribute N is rigidly secured to the
Inco-piece M. Peassing through this dist-plate
is the shaft O, at one end of which is attached
the hand P. On the other end is the gearwheel Q, which is actuated by the geav-wheel
M. Zhe Wing, J. 2, and 4. M.

II. The shalt O is journated to the knee-piece M. (See Figs. 1, 2, and 4.)
Placed in yoke R, which is supported by the knee-piece S, secured to buse-plate A, is a friction-cone, T, set in such a position that one of its sides will be parallel to the grooved. shaft I, and so that the friction-wheel J shall have an equal bearing in whatever position it nave an equal bearing in whatever position in may come in contact with friction-cone T. This friction-wheel J, being carried by the plate F, partakes of the motion of said plate F, and hence the friction-wheel J is brought in contact with a different portion of the fric-tion-cone T accordingly as the intensity of the

and, forming a shelf or rest for the helix B, the course T accordingly as the intensity of the course is a siltent and held in position by sed-section of the course varies.

Severa a course of bridge to it a hole, around which is a sedered a helior tute of a most circular course of the course of the helix B, so that when the helix B are course of the helix B, so that when the helix B are well to the course of the helix B, and the versus the helix B are well to the course of the helix B are position.

To the under all cover the tube. This this better the course of the helix B is position.

Secured to the issue, that A are for standard the course of the helix B is position.

cured the train of wheels W, and so arranged that the gear-wheel X shall engage and actu-ate the gear-wheel U of the friction-cone T. Secured to the knee-piece H is the rod Y, having its outer end crooked or bent down-

ward sufficient to come in contact with the reward sufficient to come in contuct with the re-volving arm 2, and performing the functions of a stop. (See Figs. 1 and 4.) The spring 9, one portion of which is attached to the yoke R and the other end to one of the standards that support the train of wheels, serves to hold the friction-cone in place and equalize its bearing.

Secured to the base-plate A is a tube, C, of sufficient size and depth to form a receptacle for the balance-weight d.

for the balance-weight d.

Scenred to the upper side of receptacle C is
an upright rod, having an arm holding two
pulleys, f, over which a cord, g, is passed, one
end of which is secured to metallic place F, the other end to weights d. (See Fig. 1.) The operation of my electrometer is as fol-lows: When a current of electricity is passed through the helix E the iron bar G is instantly magnetized, so that it is drawn up into the helix E, as shown by the arrow in Fig. 2.
This action, in connection with the weight d, This action, in connection with the weight of causes the metallic plate F, with the attuchments, to be raised up, at the same time releasing the roof Y from contact with the revolving arm Z, which revolves the train of wheels W, thus which revolves the train of wheels W, thus actualing the gear-wheel U of wheels W, thus actualing the gear-wheel U of wheels W, then actually a three to be trained to the contact of the contac shaft I, imparting a steady and positive mo-tion to the gear-wheels L and L', and which

in turn imparts motion to the gear-wheel Q, causing the hand P to revolve, giving a positive indication on the dial-plate N of the amount or intensity of the electric current.

In the example shown the train of wheel are operated by the actions of things; but I do not wish to be understood as limiting myself to the use of a train of wheels like W. I

may use any other motor, such as weights or like devices, or electro-motive power. What I claim, and desire to secure by Let-

ters Patent, is-1. The method of measuring the quantity The method of measuring the quantity of electric current by eausing the same to pass through a helix, and thereby operating a movable bar of iron, said bar of iron being connected to any suitable mechanism moving an index or measuring arm at each moment with a velocity to correspond with the inten-sity of the current, said mechanism being actuated or put in motion by the movement of said bar, substantially as described, and for the purpose set forth.

2. In an electrometer, the combination of the helix E, the movable bar G, metallic piece the helix 15, the movable bar G, metallic piece F and its attachments, and cone T, gear-wheel U, and grooved shaft I with gear-wheels L and L/, actanting, by means of the movement of the red Y, train of wheels or other mechanism for obtaining a regular motion or revolution of the cone T, and, by means of the frictionwheel J on the grooved shaft I, transmitting said motion to a suitable index mechanism. substantially as described, and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 12th day of December, A. D. 1878.

BENJAMIN F. CARD.

In presence of-Louis W. Frost, A. J. KENNEY.

menlo Bark mento Park what is size of Main lives and also of tranch wires for the Electric light answer Amck Mindly \$17 DH m 315 pm

267 Washington Street; Boston, Mass., Zew 16 I enclose knewat a rough skitch of a plan for Electric laws Jui way have already tied to Dame thing or may Know it to be worthless wiether tryins However I will venture to sent it and would like to lave for test it realess for done so before I sent for a Similar sketch last friday by mackingis, The rock day he required the finlege to test it himself but fearing may not do it Effectively I con direct en regard to it.

Obostin nev 16 - 1880 A is a glass tude having a Key small bore -The black line Represents the tube filled with fine Carbon or Carbon flow O. P. are platina dires Entering at each end to meet the carbon and an melded in the glass, This wined about the difficulty of the horseolal carbons breaking and would possely be cheaper The idea of using a satist gran Hoke upon which a defait of Carbon das made first accurred to me The resistence Could be risely graged - But Ju. will forder these suggestion for I have no experience whatever in these mallers, It would however affort me gene. pleasen to aid for Rug exp

Hobotlen Wor 17 80 Henry Morters a Morresso

Stevens Institute of Technology,

HOBOKEN, NEW JERSEY.

Stov.17 12 1880

J. A. Edison Doop. Doop Dis Doobise in

todach Sum an account of the haper which is had neckeday before the Moligual teading and as their harriseless and as their harriseless and as helieve you do not agree with me in animizing neurhales is how all the manifely wellights I would have all a summer and mentages in the manifely wellights I would have a summer and mentages is to be always when the summer and mentages is to be always to

arrure you that this one in hasheular is utterly unworthy a counderation and will to at one corrected by me.

dut suppose it was Constin any particul Astroller New 17.80
Henry Martins

Metuchen J-Minlo Park ngnov 1 6 80 Edison Nov 19-80 to Moore Yokohama

file Aubana - hor 20 41880-Thomas A Edisin I humbor Park. hus Mear Edison - Sonly received your letter of the 4 = bust yester day - I bey to refer your to my respects of the 6th + 13timet of Chine shipped pri magera" whiche Shope you The safely, be can supply you with all the Lane you require from here as it exists in Large Juny Ther in the marchy ductions. Saying a trifle to the Funers of the Land we Could but all the require. the price would be only a question of labor & Curriage to a post of Shipment Naturality it Shipment / pome deperiments I have made I, but think of the quality suits you we might alway have a stock here ready & when you write or Whi as we might ships in quantities each asyme regume - having a tramor or two tra week, with me fully your ideas & Schall! Try & Carry out Jan intentions leadly for Jun, How is the light 2 What of the Melengus Schilden Ding Juget one if there is may being to be time how Those at way None hus best to Lerve You, That your family are will - begands to Jun reuntance has not ani- yet fff.



Dear Sir.

get mak meling black or Della Della men Della

am effect as I have ever seen in m extended, and I would be pleased to exhibit pur pringements to go it for which prince to see. It requires plant pre harac for fer lamp. put I pur freparento make contracts for its introduction in proj fact of the winter States portune which pre lower than pury other clacking Sight to the same character. for public was surry the coming winter I ahanes like to have an offerhundy of accuring it a introduction into this with kind regards to leity Mr uplon, mr Griffi, mr learnan . Bor moth. I remain Very Rapudgully

Dread, Moryanig la New York Nov. 23 1880. What is the matter, friend Edison? are Jour Scientific friend deserting your following anch palon, "Maximo".

So it not unrosthy

Jr. friend

Evy Post

THE NEW, MANOTHOL LIGHT.

Jeff an Transman Naminasse | International processing of the processing of t

that his hasip, reas of plant meetings, we can be proved that the provide his meeting of kingsing his fixed what he begins are compared to the provide his meeting of the provide his meeting of the provide his meeting that findings has been been the control power to be such as the provide his meeting that findings has the provide his meeting to be provided as the provide his meeting that the provide his meeting has been dear the provide his meeting the provide his meeting his meeting the provide his meeting his meetin

my dear Edisor your letter of the 33. is at hand this morning The eftract it contained is only another example of worthteeness of newspape reports, just-as in the Herald made to criticise majim lealing up his lampe with lealing wax!! Really, however, & wish very much you would go and lee majores lampas was entirely ocephical in Lit & law them; and then I was very much Our prised

I tell you wall frankness, one of hillarge lamps. Now, expre never been such that in my opinion, the meth. resulto as these in your labora od he has for making his tory, nor have & ever leen any carbon loopes, consolidates them and gives them a won rone who has been them there. One of your newest lamps which der ful resisting power and morton had at Hoboken, and durability. He has run them which he lighted up for con up to 60 candles for an enparlow, would not Dam eure. hire month and they, are still Professor Young agreed with mo good. On morton's laboratory that your lamps were not in we measured them at 80 can lended to be run above 16 to 20 aleo on the photometer, and Candles; and that you had at Trapers we got 100 candles not been able to maintain on from each one of eight lamps at 50 candles for 24 hours for lix or eight hours consec. I am fully aware that in utively, One of mapine large all this, Inot fully posters meandescent lamps ran to for I have not been in heurs Ruce the Cast of July, But 650 candles, photometre meas. you remember that & have wement, as we can in Hoboken. asked for lone of your lan his major total me that he and have been regused; had obtained 3000 candles from Now as to the Evening dos

On Friday, the 19th, after the ad journment of the academy, a reporter for the Post asked me what I thought of hor, majime camp, & replied that I was of the opinion that his mo improvement in carbond was a great stipe in advance. That my friendslufe for hor Edison led me to regret that he had not been the one to but upon the new mettod. That roje Draper, morton, and mayelf had tested the lamps to our latisfaction and had obtained andles by measurement one of these carbon loops, & we this is the substance of stated total him. He took no notes but wrote it out from memory evodentity; and a poor memory attat. el. hoston had the lamped invited of a Brow to his laboratory to see them 2d, of laid not one word about any letter from you to Draper, for there was none. 3d. not about effets to test the durability, of your lampe for we made none, 4th, hot about the titto of the mafin lamp which are all wrong, 5th hor about your lamp beingold twenty years ago, you will thereford Rec that everything you can properly obje

to in that article is enfoncours. and yet there is just enough of truth in it to make it plansible of you desire o will write to the Post and give my efact opinion as I have now gwan it to you ! as to priority, mr. maximo patient Chowe that he filed his applicant tion for an incandescent carbon ! ment in a hyprocarbon vapor as early as Oct. 4.1878. and indud from mr. Twan o lecture in the last Chemical News (which we recent here on Tuesday (ast) it would Deem trat an incandescent ament of carbon in a vacuum was used by him 20 years as The Teerstary of the U.S. Che trie dighting Company who is and old Wale friend, asked me if my business relations with you were enchas to prevent me from make mg a leries of tests upon the max in lange, well as I made upon yours I replied that there were no

business relations between you and mujelf; that our relations were those of personal friendships. That I made the testo wpon your lamps without bias, Rolely to ascertain racto and that I supposed yo Could have no possible objection lang doing the lane with their Pelitid, I chall be as a condition sepeak more intelligently upp then efficiency, and economy, & a care to Jurnish me come o best-lamps they will be in unpartial let with the others ie mayown left respect regur be honest even with a the yourself It am in error, I hope not, it is not the part of friend Chip to conceal from you the facts and lead you to believe better your lamps than the facts was you an injustice Cordially

United States Internal Enclose a sample of Jelme minuel which has been reduced for it antivil state by attrition - on one stay of the parcels of manufacture it is my februs - It is of the Oralus of askes to an Con by tith - It my from of come vile togo although Than an doubt a material similar has before this hen called to your attention and you have by the time uphenetil in aspiriments compter, in the minul line The article in the My Time the morning has called any allertion to four efforts in obtaining a Carton - and as I an manufactury they article for paper orders in large grantly Shought it amen do not have track

To prevent discrete gration, could me the loop of your Cleative Samp be sufficed by capillary attraction with furt the requisite quantity of some Hydro-Carton from a small fount attached to the lamp without interfering with Maxim's claims - I am quite an experimenter, but on the subject of and offer the suggestion without how ing whether it is practicable or not People thely Yours A. B. Hertchins

Balmon Falls N H Nov 29 80 mon Fells, n. H. Nov. 29, the matter, the great prouble is in keeping the Electric Hite constantly going, is that the conson points constantly burn away a grow shorter, and that certain feeders are attached to them to keep them the right dis. tince apart. and even you have not get succeeded in overcoming this difficulty perfectly. Now I think at any rete, hope) that I have a material that will overcome this difficulte If you will please to give me the dimensions that you want the size of boents in overy direction I will

sand some to we to test and ductor of electricity but I think apperisment whom. There are no electric lights in this vicinity Only bless allow me the opportuor I would test may points myself . nits to test it and if it should Perhaps you will think the you answer the purpose, both of as do not consider my proposition of will, purself in particular, get a sufficient importance to notice to vest benefit pont, of course. but I very wish you will do so; At any rute, please anomer in as perhaps it may prove to be some way, wil greatly oblige, just what is wented I think the best was will be Bours most truly and respectfully, for you to send me a pettern of points made of wood a plates of Peris, and I will copy it perfectly in Aleverance - M.D. the substance I wish you to try-I have tested it by subjecting it to the most entense heat I am able to with the blow pipe, at find that I cannot affect to in the lead, in fact, the greater the heat I can apply. the harden & hecomes -It may not be a perfect con.

Trashington Se. Nor 29 th 1880_ Sisis . Noticing am article in the Times on to Chestic Lights it accurs to me that foundly the Mai of the film for require, it is a very fine quality of guest forefree here.

I have also seem

i that Country a bree

which failed forelo Containing a soft Elastic fibre like

hell and is much by the nature of pollows the state of the state of the same of the state of the state of the state of the same of the state of the state of the same of the state of the state of the same of the same of the same of the state of the same of th like - trouble - Ting Respectfully Try Kerper (outland)

1932 Trough Sh. Marking low tree

31 Sands St. Brookly Nov. 30, 1880 My noit to the botanical museum of Cornece University was a very fortunate one. I not only had an opportunity to examine the collections of endogenous Plants made in Porage by Profs. Hailt and Chentis, but Prof Printies, the professor of Botany, gave me a quat dial of valuable information in regard to localities and about collecting. He also allowed me to take with me a book Exelonging to him on the Palms of the amazon, which is now tetramely rare . I know of but two copies in this country; and this is one of there. The bast fiber comes principally from the upper Rio Negro, above manaos, in the Valley of the amagon. It is taken directly from the trinks of the trees as they chand. I hope however to be able to direct the pickers

so that they were get just what you want, if it grows on that particular Lalen. I send you herewith two small epicineus of the assain halm. This is the only obscimen I could get aff for face. The fiber is the best looking have remained they have. It is too brittle now, but hands you a by bulingle this is are largely, if not is I will entirely to the fact that the room in the protocern in which the openious an Okeht are so unusually dry, The and the second execimens of bast Kept in The same room were also very britte. This Assai is a common halm about Raia, was it would be more expensive than almost is with as its any other Kind of palm for that reneon. I enclose a Kind of a form for a letter to the minister of agriculture and to the Phuracut of the northern provinces. I will bu case you should not choose to use this form, don't first to give them blenty

of topy. The circular Sittle schooled is

a straightforward one, pretty much as you would write for americans a Englishmen, for it will be ineful principally with Englishmen, and Frenchmen.

I have my list of plants about completed. another day wie as the work , I think . It has been a very futurate their chat I have had this mouth for getting together the results of the work of other men in that country on The subject of places and endagens . It will Rane me a great deal of time and labor after I arrive there.

at shall be obliged to go to Wien my tomorrow or private businers, but I will return the same night, and shall call at Meulo Pack on Thursday the 2 rd of Dec for the letters The letter of order was any received.

John C. Bramer

Charles Rice Orgen Machiney You would much oblige by giving me excly information about high speed evigence, reported to be in satisfactory service in Chiergo Ma Ja Edison desires to get the very best high speed engine and directs me to get complete information; so hope you will aid me with your extensive engineering experience in the Western development. Yours Very truly Telius Horning Menle Park. N.S.

Ra a Janciro, Brond and the first week as the transfer You Excellency Permit me to recommend to your distinguished consideration the bearer, my friend and colabore, m. John le Paramer , already . Knowing your country in connection with the Imperial Geological Survey. In my undeavors to perfect the electric light and bring it into practical every day use, I have been able to accure her thamers services as a botavial for the her pose of exploring Voravil for certain regetable fiber. Same all the same In the present state of the development of this invention; the fixer for which me Brumer returns to Brajel, is the one thing must read . most valuable and heavyly compared and and funding, I therefore for med to tree you that of the electrice light. The world is already indebted to Ampie for a large number of almost invaluable (productions

To His Excellency, the minister of Agriculture,

Im . Bringly when you in searpy of another. Aside follow the inextinuable frature of and benefit of suchfa discovery to the whole childred world, for Bright jet fiell be falso a new injunity and therefore a wew source of wealth and prosperity. ... Aware of the sicouragements always held out by your country to accuracy to discovery and to invention commend. Ing. Bramer to you in the full and accurance that you will as all in your house to aid him to make his microw a Thorough reachers a many the second of the and a second Vin Reiterating to your excellency my high regard said seteem for yourself, for your wise Emperior .. and for your country, in am sii, is in more in Some abidicut reciant, some al many Thomas Ac Existed Greece Parks, Nois Juney, Muiled State of America, " 1 1. Dec-1-1880 in the suice in a conserver nume best Let . " a landar T. . . em allen h

Letters Ivantes To His Executioney, the Busides of the Province of Para + " of the amazonas V of Maranhãov " Ceará Rio Grande do Norte V Parahyba do Norte: . V Pernambuco A Cagoa » Dergipe. Bahia Expirito Santo Riv Grande do Sul São Paulo. To His Execcany The minister of ityriculture, this de Jamis One circular letter to be shown to all foreign merchants in Brazil) Letter from The Pravilian minister at Washington to the any of the above, with preference for the minister of a griculture, and the President of the Province of Para

It has occurred that the glassigle hich contain your Electric dights might be made light, the an invented bell and led with carbonic acid Thus aronding the hecessity of Creating and maintaining a the combustion of the carbon ken tried, or patented

matter but my excus is, that I ful a great interest in your lights Yours mot Perfy

not, Thomas A. Edison Mento Park, Nife to my comman tion of a few days at your first possible opportunity I entend going to Flinida to spend winter of account of my bad states of health. I think I shall sail from New Bonk If so and in think it worth while I will visit got at Manho Park. have strong hopes that the meterial I propose will perfectly a name the purpose desired. It is artificially made and composed in great past of carpon, although the carbon is protected, so is not to wear

awing I think, by clastricity on by the most intense heat that can be applied to it. I wish I had a hands and convenient opportunity that its myself, but I have not not as there is allowers. I some deem it with vision to beauth your time to test to if you will down a postal to that affect, so will do me a great form.

Most respectfull purs.

Aleverance

W.E.Dodge:Jr;Prest G.P. Cowles, Nice Prest & Treas. AA. Cowles, Secy No. 19 Cliff Sheet Stenogi aphic Letter P.O.Box 2575. This A. Edison Es Mento Park, Dear Fir. I wish to get some Electrical teste made the conductivity of theo you kindly favor me with the address of competent person to whom I can apply ,

Du Mauser arts 344 Brown St new Element 3" 1880 9 Dear Sir. For some time past some considerable attent -ions and study in order to form some aidea as to what might be Electric light. Burng the limited investigations that I have been able to make I have formed the cardon or any carbonited

embetance is not the with me in any herfection of the Electric advantages that may light - Fulltumore be derived from what I believe that I have I may suggest I will formed ideas from take your word of honor which can be debelfed for that and will a # substance which immediately submit my will prove to be the ideas to four and ideas to far and ferfection of the Electric light and it is will abide by your decision as to their my desire to place I ideas in the hands As for se I I some person or persons have been able to so learn who have the facilities from observation and from to prove of disprove unding my ideas are their value, any encouraging word Very July yours I'am not after advance Byron C. Wordsuff. money) from your saying that you will share

May Carman Dec. 6"1850

Decepti I marted a some copy

May Sale and 19 months of the money

Lead Sale and Branning of the money

At desired me to me some off the money

At desired me to me your to send

Sales to he are and any yours

may going

mr. Carman ne nin Charfer han he nin

received a letter from Mr. Branner in which has says "Jell Mr. Carman so be sure to sent me Cipher for calling whenhe sends tellers."

Please to send chiefe for Mr. Brammers Balary to my order & send word by separate note as soon as you send it lwish you affapty newfor Yours Joseph Durk yours.

er les le Phelps

Dee Leller Bux Pag 746

Del Den 1899. Butter Channey

18 Chathe Channey

New York Dock 1880.

Buf Edican

Stan Sir, Me have this day last

to your address per suppress
(8) two hundles of far ance bundons of while place take

wite.

July was truly

July was truly

July was the hundles of far ance of the sunce of the sunce of the

Edison Menestrak Menestrak Nampero Belgio Ceking Estingo Moure to Edison

Acele, 80

you clear are based repor unsuffer & Experience New York 344 Brown youre of you say that Carton withstailed the higher temperature of any known cleaner Anotire and that i I have discovere new Element you prefored to talk buince was received this All. I am not a chimiet and count pay that I have discovered any new Element in Anatur imply formed and idea whom

which I would like to this place the ashes have you pass Judgment and subject to the Carbon as obtained highest passible present and used heretofore is which must be perfectly in form the fruit of steady in one direction imperfect Combustion. The presure und From this fact should be in my opinion I have drawn the at least ten times as following conditions agreed per equare met fibrous, publisher any begitte as the force used to following conditions. shall be found best current adopted to the purpose light. current used for the and subject it to perfect Electricity is combustion, Take the the transmission of ashes and remove or desire Force, Carbon is Stature Electrical deposit - void from everything which is perfect - combuter fruit of abmorphenial conditions. Asher-the fruit of the polished steel mones combined clements. Therefore use Ashes as and intermediary to of great strength. Santo

Respectfully yours B.C. Woodruff

Partine dec. 7/80 log bear Edison Statement about illamine land, as or source it is only anadefication in the rather francis suspend & see think wing for water any thing receich model - affine die a loop cale

& sule machine at by The Subject.

New York, Ser. 8 : 1880. J. a. Edwan Eng. Alenes Fark, A.J. ve apply to the wee V. F. Butter, Havan W. Butler's letter

Ferthizer Сомрину.∗< New York, Dec 9 188 by dear Edisas your letter beened Many Thanks. Shany time I can be of serve bywas Call on me There is a sort of boom going in, on the Street Toway on all Electic highto. The Grown are Onging Brush Faller & maxim. I Thento I Can get at the bottom

of the movement of it would benefit ym. The movement to the Eviran bught What do you thanke? July Juns

egg 9,0ec 1880 Shibilliams ELA LA

il I were to fut them in y enguine, is it with while for the empletion of the buils me to make any preparetime for the introduction of Sofannis I have seen the Co hie lighty that have been into govelight mond - Spikam duced by others are object. be done as well din monthy den my jurgment unless they my be very quity improved hence when the builting will be confleted divoit bother They will not enter generally into Domistic uso. withitnow If I indented rightly your light is the only one produced Very Kinky ma Vacuum, rifes, yours Common be judged by the failure of other v. Stoccombone that if you My building is on a priniment design introducing your lights Corner, lot 88 by 109 of briles by in fluigo, dome aunquinch is 83 by 87 the afaitments could be mude with the of 9 +10 kins and and floor City Wales Horks for the The will give about 100 winters weeftheir finderand My Spect in writing, is on 12 Afartment

Metuchen

Yokohama

Garment choice electricis



The Southwark Foundry and Machine Company,

The Porter-Allen High Speed Steam-Engine.

W. H. MERRICK, President, C. T. PORTER, Vice-President, G. A. BOSTWICK, Secretary.

PHILADELPHIA, LICO 141

Hand's Come from form 13" at Hand's feed de mot to take and some to happy on gran and see as to fruit me to fruit mand to fruit mand to hand when he has dicular hurry for the engine you refu to me has been formed and must be much count of much come future time.

SOUTHWARK FOUNDRY & MACHINE CO.

Saluen Falls Not Dec 2080 Lelmon Fells, MAG, Dac 20, Orof. Edison, Den Sis, -In the same mail with this I sent wo few points of the substance I suggested for you to try in place of pure arbon points, which I morn much deane for on to test I would have sent them soone had I not hem quit sich They have but little carbon in them as I have have difficult in obtaining the substance wa fine power which is necessary I measure to incorporate & have those to well Grobon pieces we very hard as von

well know, I too herd to be receive them) and I will make some more of the apart size in reduced to a powder in a montary therefore I have ground it up by attriction as I had to wish for al also incomponents a larger quant (profuntion) of Gomen I have procured some by hand process and incorporated it in the points I send were carbon in Them, which very likely will be what is needed . I presume that they can be made it some nine tenthy curton if necessary It is all mixed in a soft state at headers new repets. If I know what some would said you hert. I would not still said you hert. and way likely it will be the in, blase test there of we will all let me know to result, al while not , but not knowing o make any suggestion to which occur to son, al I will not have made thom of different sizes, upon them . It certainly seems in hopes some of them would suit to me that this substance can be son in that respect. them, we in will see fit to try In these to anomer the required purpose of these to not . In hast that I am when to produce seems to affect them from to the but electricist man to is more than I can tell go do well, let me know what size you would prefer it as to as difficulte to reduce the size whom they get so wish that I had facilities form hard so they will by the time you

Thomsaffy testing , myself - If so I would not trouble you to do so. Thould it turn out to be the substance wanted, you shall receive the herefit as well as myself. I shall visit Plonida soon on account of my ill health, il I any encouragement is given in the motter and I can be of any food in the matter, I will call on you in my way thither and tell you all I know about The metter -. Olean let me han from you in a flow days, as I shall go to Florida (when I have a home) in 2 a 3 weeks at letert Most truly sous, is I enormal, M. D.

LADD TOBACCO COMPANY. 21 North Main Street. Austin with in which I can lay the method before you when I believe Kindly thit Much Quanties a pertable give A motion Electric motor about & horrefores the Cato running to cut but little figure in res. -trus of this rother countries your me active you

Amquigan Pistqiqt Caleggaph Co. This of Edies Coffee Sur Den Sur Went Sur Sur Sur Sur Sur Sur Sur informed that your Electric of you can make use of my 239 Broadway

quality of bamboo whis would answer your pur - posed could be procure in Peni or Bolivia. Menlo Park They say :- " The cost of transportation from the interior of Bolivia referring to would be very heavy; while with no the ar= "thele used is not pro-" duced in the country, of particulars as to their "but is imported from Guayagnil We have cost in large quantities. written to me agent at Here. We trust you mee "that part to send you find these details of samples of the various interest. hinds grown in Emador. Our friends at "The article grows in imhima wife us that they do not think a "banks of the Guayaquil

Fabri Clonen Samples reach is from Ecuador, they shall be orwarded to you. Dear Vir, Fabli 1 Chamas answo de letter book haze 744 The Thine

PHYSICAL LABORATORY, State Agricultural College. Ames Jones Dec. 3 1. 2. E Editor In a dollar france Last Summer Ingo Encouraged in the muspot of being able to perchase from your one more of your Corbow damp If to cituated That you dans more I rope for mill ato so. Af you have there for Rade mould know have been by deline a leatine acrow our Electric Solding and mich very much to have one for Exhibition, Hoping true was in proce your valuable line Very school by Jours g. M. Magomber With pleasure but cant go todays when will it do Conney hay Heroed any Evening let me know day ahead.

MEMORANDUM.

New York, I = 2 f . 1880

THE BUCKEYE FINGINE GOMPANY.

EXTERNO IN STAM BIGINERATION,

EASTERN A GENCY.

When the Port of the Side of the Becker advantage Could Evaluate Ray of the Side of the Becker advantage Could are a Front Section 2006.

Room 48, Ocal and Front Section 2006.

Room 48, Ocal and Front Section 2006.

Room 48, Ocal and Front Section 2006.

NEW YORK.

What Alexan front was a first section 2006.

When for the Side of the Side of

120 826 44 and a hereta constation to your next Exhibition wh is the guen we a few doys

for a correspondent of me of the leading Paris papers? distinguished breaderting P. Also a lieket of odmering that would be good any don bruit ward as I teleranery

s lamps . If the - Caso mid you I dain to do an or fort in alias thorny ly porter (about its manufacture - a report on glass circular vile por my avertion may which may you mile

Sand in let

Treasury Department,

SECOND COMPTROLLER'S OFFICE,

Washington, D. C., 15th October, 1880.

I shall have ready for delivery in about two months my report on "Glass at the Paris Exposition of 1878," which will appear under the authority of the United States Exposition Commission.

This report will contain about 150 pages of printed matter, and will give valuable information on the following subjects:

Finise and window glass, their muchinery, tools, ovens, and framers, stained, ensambled, flectoride, engraved, and after a stained, ensambled, flectoride, lengraved, and silved phile-glass; fluide dand patest rolled glass, and silved phile-glass; fluide dand patest rolled glass bottles and glass fluide dand patest rolled glass bottles and silved glass, fluide dand machinery, engraved, etched, decorated in your land and machinery, engraved, etched, decorated and object glass, their machinery, furnaces, ovens, and tools; forestead, and their machinery, furnaces, ovens, and cools; forestead, and forestead, and readilized glass; glass familiars, chandelizes, caudelizes, glass; glass familiars, chandelizes, caudelizes, and glass, expected of an expected plans; special glass, the property of the patent glass, glass fluides, and insperit word; soluble glass and its application; glass glock and flower shades; a general description of gas, epen fits, petroleum, and other furnaces, lens, ovens, etc.

(Chassillation and properties of glass; opstallization, dovid-

rification, action of air, oxygen, light, water, acids, and alkalies upon glass; materials employed, and where found; pot and fire-brief making; mechanical tools; comparisons between foreign and American glass making, etc., etc.

Should you wish to obtain copies of said report, I will send them to you, as soon as published, free of postage, on receipt of \$1.25 per copy, in paper covers;

bound in cloth. Respectfully,

CHARLES COLNÉ.

NO 2

Downer my

Phense asculani from operator at Punta Rassa florida if lange frahing pale came grows near a Edwar

THE TYPE OF AN AUSTA RASSA DAYS

THE TYPE OF GLISH THEM ANY QUENTY

THE TYPE OF GLISH THEM ANY QUENTY

THE TYPE OF PARTY OF THE OF THE

N newgort DUS. Cable Office 16 Broad Street new York Bry dear Sir, Suitend doing myself The pleasure of visiting Meulo Park on Tuesday Comps west to see your lamps me Ratchelor Kindly promised to the Ine some of Them burning in rooms of a house. May I ask whether it wiee he convenient for him to see me on snesday Enq

Ma & Mr Ward and The
or two friends will
accompany one.

Lam, dear hi,

Yours very truly

Alexhuinhead

6 newyork 16 Edison

PUBLICATION AND MICROFILM COPYING RESTRICTIONS

Reel duplication of the whole or of any part of this film is prohibited. In lieu of transcripts, however, enlarged photocopies of selected items contained on these reels may be made in order to facilitate research. A Note on the Sources
The pages which have been
filmed are the best copies
available. Every technical
effort possible has been
made to ensure legibility.

FINANCIAL CONTRIBUTORS

PRIVATE FOUNDATIONS

Alfred P. Sloan Foundation Charles Edison Fund The Hyde and Watson Foundation Geraldine R. Dodge Foundation

PUBLIC FOUNDATIONS

National Science Foundation National Endowment for the Humanities

PRIVATE CORPORATIONS AND INDIVIDUALS

Alabama Power Company Amerada Hess Corporation AT&T Atlantic Electric

Association of Edison Illuminating Companies

Battelle Memorial Institute Foundation The Boston Edison Foundation Cabot Corporation Foundation Carolina Power and Light Company Consolidated Edison Company of

New York, Inc.
Consumers Power Company
Corning Glass Works Foundation
Duke Power Company
Exxon Corporation
Florida Power & Light Company
General Electric Foundation
Gould Inc. Foundation
Gulf States Utilities Company
Idaho Power Company

International Brotherhood of Electrical Workers Iowa Power and Light Company Mr. and Mrs. Stanley H. Katz Matsushita Electric Industrial Co., Ltd. McGraw-Edison Company

Middle South Services, Inc. Minnesota Power New Jersey Bell Telephone Company New York State Electric & Gas

Corporation
North American Philips Corporation
Philadelphia Electric Company
Philips International B.V.

Philadelphia Electric Company Philips International B.V. Public Service Electric and Gas Company RCA Corporation

Robert Bosch GmbH San Diego Gas & Electric Savannah Electric and Power Company Schering Plough Foundation Texas Utilities Company

Corporation

Thomson-Brandt Transamerica Delaval Inc. Westinghouse Educational Foundation Wisconsin Public Service

BOARD OF SPONSORS

Rutgers, The State University of New Jersey Edward J. Bloustein T. Alexander Pond Tilden G. Edelstein John Gillis

Tilden G. Edelstein John Gillis New Jersey Historical Commission Bernard Bush Howard L. Green National Park Service, Edison National Historic Site Roy W. Weaver Edward J. Pershey Smithsonian Institution Bernard Finn Arthur P. Molella

EDITORIAL ADVISORY BOARD

James Brittain, Georgia Institute of Technology Alfred D. Chandier, Jr., Harvard University Neil Harris, University of Chicago Thomas Parke Hughes, University of Pennsylvania Arthur Link, Princeton University Nathan Reingold, Smithsonian Institution Robert E. Schofield, Iowa State University

CORPORATE ASSOCIATES

William C. Hittinger (chairman), R.A. Corporation Ebeard J. Bloustein, Ruiges, The Seate Luliversity of N.J. Cece Bruynes, North American Philips Corporation Paul J. Christianen, Charles Elston Fund Philip F. Dietz, Westinghouse Electric Corporation Roland W. Somh, Telement Bectric Corporation Harold W. Sonn, Public Service Electric and Gas Company Morris Tanenbaum, ATET

THOMAS A. EDISON PAPERS

Reese V. Jenkins Director and Editor

Thomas E. Jeffrey Associate Director and Microfilm Editor

Assistant Editors Paul B. Israel Robert A. Rosenberg Keith A. Nier Andrew Butrlea

Research Associates Douglas G. Tarr Mary Ann Hellrigel David W. Hutchings

Assistant to the Director Helen Endick

Secretary Grace Kurkowski

Leonard DeGraaf Alan Stein Jacquelyn Miller

and the contract of the contra

Student Assistants

Joseph P. Sullivan Karen Kozak Granville Miller

Thomas A. Edison Papers

at Rutgers, The State University endorsed by

National Historical Publications and Records Commission 18 June 1981

All rights reserved. No part of this publication including any portion of the guide an index or of the microfilm may be reproduced, stored in a retrieval system, or transmitted in any form by any means—graphic, electronic, mechanical, or chemical, including photocopying, recording or taping, or information storage and retrieval systems—without witten permission of hitgers. The shall cludiers jib. New Hormswick, New Jersen.

The original documents in this edition are from the archive at the Edison National Historic Site at West Orange, New Jersey.



A SELECTIVE MICROFILM EDITION

PART II (1879–1886)

Thomas E. Jeffrey Microfilm Editor and Associate Director

> Paul B. Israel Assistant Editor

Mary Ann Hellrigel David W. Hutchings

Douglas G. Tarr Robert A. Rosenberg

Editorial Associates

John Deasey Barbara B. Tomblin Jacquelyn Miller

Leonard DeGraaf Joseph P. Sullivan Alan Stein Karen Kozak

Maria Antonakakis Student Assistants

Keith A. Nier Assistant Editor

Reese V. Jenkins Director and Editor

Sponsors

Rutgers, The State University of New Jersey National Park Service, Edison National Historic Site New Jersey Historical Commission Smithsonian Institution

> University Publications of America Frederick, Maryland 1987

